

EAST INDIA (HORSE-BREEDING).*

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RETURN to an Address of the Honourable The House of Commons,
dated 22 August 1887;—*for*,

“COPY of the ANNUAL ADMINISTRATION REPORT ON HORSE-BREEDING
OPERATIONS in the BENGAL and BOMBAY PRESIDENCIES, for Official
Years 1884-5, and 1885-6, omitting the MAPS and APPENDICES 6 to 17,
inclusive.”

India Office,
9 September 1887.]

JOHN E. GORST,
Under Secretary of State for India.

(*Mr. Burdett-Coutts.*)

Ordered, by The House of Commons, to be Printed,
9 September 1887.

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COPY of the ANNUAL ADMINISTRATION REPORT ON HORSE-BREEDING OPERATIONS in the BENGAL and BOMBAY PRESIDENCIES, for Official Years 1884-5 and 1885-6.

DEPARTMENT OF HORSE-BREEDING OPERATIONS.

ANNUAL ADMINISTRATION REPORT of the BENGAL and BOMBAY PRESIDENCIES, for the Official Year 1884-85.

DURING the year under review the following officers were employed, as noted, Officers in the Department:—

- Inspecting Veterinary Surgeon J. H. B. Hallen, General Superintendent, Horse-Breeding Operations in India.
- Veterinary Surgeon J. K. Grainger, Officiating Superintendent, Horse-Breeding Operations, Bombay Presidency.
- First Class Veterinary Surgeon B. L. Glover, Assistant Superintendent, Horse-Breeding Operations, North-Western Provinces and Rajputana.
- First Class Veterinary Surgeon (now Inspecting Veterinary Surgeon) J. Anderson, Assistant Superintendent, Horse-Breeding Operations, Panjáb.

Mr. Lamb, Superintendent, Horse-Breeding Operations, Bombay Presidency, remains on furlough until May 1886.

HORSE-BREEDING OPERATIONS.

2. At the close of last year the number of stallions employed was as follows:— Stallions; number of.

	Bengal Presidency.	Bombay Presidency.
Thoroughbred English	60	6
Half-bred English and Norfolk Trotters	136	10
Australian	3	1
Arab	71	61
Persian	1	—
Stud bred	29	—
Pegu	—	1
TOTAL	300	79

3. During the year stallions have been received as follows:—

Increase; received during the year.

Whence received.	Class of Stallion.	Bengal Presidency.	Bombay Presidency.
From England	Thoroughbred English	4	3
	Norfolk Trotters	10	2
By purchase in India	Australian	3	—
	Arab	10	10
	Turkoman	2	—
From Remount Department Presented to Government	Reserved colts	1	—
	Arab	—	1
TOTAL		30	15

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4. The 14 English horses furnished by the Right Honourable the Secretary of State arrived safely in Bombay, and were forwarded in due course to the depôt at Hapur (Babugarh). All were approved, and are now employed in the breeding districts; so likewise are the three Walers, 10 Arabs, and two Turkoman stallions purchased in India.

Decrease ;
casualties.

5. On Appendix I. are given the number and percentage of casualties of stallions. It will be observed that only four deaths occurred in Bengal, which must be accepted as a very low rate of mortality (1.27 per cent.). In Bombay the number of deaths was five; and five of the nine deaths arose from colic and inflammation of the bowels (*vide* Appendix II.).

6. On the following table are shown the percentage of casualties in this and the previous year :—

		1884-85.	1883-84.
Deaths - - -	Bengal - - -	1.27	2.92
	Bombay - - -	6.66	5.06
Destroyed - - -	Bengal - - -	3.83	1.94
	Bombay - - -	8.00	NIL.
General average - - -	Bengal - - -	5.11	4.87
	Bombay - - -	14.66	5.06

Sales and trans-
fers.

7. The following sales of stallions took place during the year, as shown in Appendix III. :—

	Bengal Presidency.	Bombay Presidency.
Thoroughbred English - - - - -	1	—
Norfolk Trotters - - - - -	5	—
Arabs - - - - -	2	8

One reserved colt was returned as unfit for stud purposes, for disposal in the Remount Department.

Number of
stallions present.

8. At the close of the year under report the following stallions were present :—

	Bengal Presidency.	Bombay Presidency.
Thoroughbred English - - - - -	89	8
Half-bred English and Norfolk Trotters - - - - -	137	11
Australian - - - - -	5	1
Arab - - - - -	75	55
Persian - - - - -	1	—
Stud-bred - - - - -	24	—
Turkoman - - - - -	2	—
TOTAL - - -	313	75

Classification.

9. The above horses are classified and distributed as shown in Appendix IV. The classification has been made by the Officiating Superintendent in the Bombay Presidency and the Assistant Superintendents in Bengal. Briefly, the classification is as follows :—

	Bengal Presidency.	Bombay Presidency.
Very good - - - - -	107	38
Good - - - - -	139	24
Fair - - - - -	65	10
Bad - - - - -	2	1
Not seen - - - - -	—	2
TOTAL - - -	313	75

The three reported as "bad" have been disposed of.

10. During

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10. During the last nine years the distribution of stallions has been as follows:—

Presidency.	Province.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.
Bengal	North-Western Provinces -	152	160	194	148	144	148	107	116	125
	Rajputana - - - -	2	7	7	5	5	6	6	2	-
	Panjab - - - - -	127	136	123	156	165	161	184	190	188
	TOTAL - - - - -	281	303	324	309	314	315	297	308	313
Bombay	Deccan - - - - -	-	-	27	41	40	45	47	41	37
	Gujrat and Kathiawar -	-	-	17	22	20	24	20	18	18
	Sind and Cutch - - -	-	-	12	12	9	9	13	16	17
	Biluchistan - - - - -	-	-	-	-	-	-	-	4	3
	TOTAL - - - - -	-	-	56	75	69	78	80	79	75

11. Though the strength of stallions is shown as 313 in Bengal and 75 in Bombay, the actual number at service was 277 in Bengal and 63 in Bombay; the balance consisted of horses either temporarily unfit or unacclimatised.

12. In letter marginally noted it was requested that the following stallions be supplied from England next trooping season (1885-86):—

No. 41, M.D., dated 28th July 1885, to Secretary to Government of India, Military Department.

Future supply of stallions.

	Thoroughbred English.	Norfolk Trotters.	TOTAL.
For Bengal Presidency - - - -	12	8	20
For Bombay Presidency - - - -	6	-	6
TOTAL - - - - -	18	8	26

13. With reference to paragraphs 23, 24, and 25 of last year's Annual Report, regarding the comparative merits of stallions employed, and the fields available for obtaining them, I have addressed* the Government of India as follows:—

"Referring to your Department Memorandum, No. 1278, S.D., dated 17th October 1884, with enclosures marginally noted, herewith returned, I have the honour to report that I quite concur with Lieutenant General A. R. Thornhill's opinion, expressed in the latter part of paragraph 13 of his letter above noted, that in purchasing yearlings the advantages are that the successes are genuine animals with constitutions unaffected by over training. The disadvantages are that the failures (and failures there must be) can only be disposed of at auction at a sacrifice.

"I believe it will be wiser to purchase, as a rule, only stallions of a mature age, and of whose make and shape we can be sure of, as in buying yearlings it must be always uncertain how they will turn out.

"But if Lieutenant General Thornhill has an opportunity of obtaining thoroughbred colts nearly two years of age, and thus still yearlings, and he has every hope of the animals, by their general appearance, proving of the desired stamp for Indian stud work, one or two of such colts might be annually bought.

"Thoroughbred colts, forced as they generally are in England by high feeding, when nearly two years of age, can be fairly judged as to their likelihood of proving suitable; but to form an opinion of a colt of 12 to 18 months old, as to how he will eventually prove, is not an easy matter.

"I know that Lieutenant General Thornhill is most zealous in endeavouring to obtain thoroughbreds of great power and large bone, and of not too great height, a class of stallions which is easily pictured, but not easily found; still I can but repeat my earnest suggestion that only thoroughbred horses with deep barrels, broad chests, and stout legs, possessing great bone, especially that stand square on their legs, and do not turn their fore toes out in action, be

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sent out to India; indeed only thoroughbreds of weight carrying hunter stamp and of good bone are the kind of thoroughbreds required. I am aware that such horses can be seldom found, as they are generally castrated and used for hunting purposes; still I do urge that such thoroughbred stallions be sent out.

"I do not advocate obtaining any half or three-quarter bred horses for our stud work, as from their pedigree their produce would be uncertain. It is different with Norfolk Trotter horses. They have become, from steadily pursued breeding for many generations, a distinct class and stamp, and can, as a rule, be depended upon in getting stock after their own stamp. The blood of the Norfolk Trotter is now only touched when a fresh supply of thoroughbred blood is infused as required.

"I avail myself of this opportunity of suggesting that only very well-bred-looking trotters be purchased for India. It is true that sometimes the larger and coarser trotters have been from smaller parents showing more blood, but in order for the Norfolk Trotter to be fully appreciated in India he must show blood, have a good barrel and action, with short well-boned legs, and, though last not least, have a well-bred silky coat with not much hair, and that not woolly, on his legs.

"In former reports I have often recorded that the stock of thoroughbred English stallions out of country mares is generally leggy and small in legs. The thoroughbred sires that do get good-limbed stock are very few; hence my having so often recommended that only stout large-limbed thoroughbreds be supplied, and I have solicited that Norfolk Trotters sent be well-bred and not too large, say from 15 hands to 15 hands 1 inch in height.

"I find on my return from England, after 18 months' absence, it has been stated that the Norfolk Trotter blood is proving coarse in the second generation. If such be the case this can be easily remedied by the infusion of Arab blood, which will be better for the purpose than thoroughbred English.

"The great improvement effected in the stamp of horses in India by the importation of Norfolk Trotter sires is universally admitted; I therefore urge that the supply of this class, as required, should be continued, and again I would repeat that only short-legged stout thoroughbreds, standing square on their limbs, be sent out.

"One more point I solicit that Lieutenant General Thornhill's attention may be invited to, viz., not to send stallions with their tails docked. A horse with a docked tail becomes, during the hot and rainy seasons, tormented with flies, and having a short tail cannot whisk them away, and when a docked horse is in the districts, the sheath or penis itself sometimes becomes fly-blown and affected with maggots, causing unhealthy sores, which have in several cases rendered stallions temporarily useless, and in two instances permanently unfit for stud purposes.

"It must be remembered that the only classes of suitable stallions obtainable are, —

- | | |
|--------------------------|-------------|
| I. Thoroughbred English; | III. Arabs; |
| II. Norfolk Trotters; | IV. Walers; |

and probably from now, country-breds.

"The difficulty in finding suitable thoroughbreds is acknowledged; Norfolk Trotters of the required stamp can be obtained; really stout Arabs of good caste, power, well-boned limbs, are scarce; Walers fit for stud work are not often imported, and it may be surmised that entire thoroughbreds of the right stamp are not often met with in Australia, or importers doubtless would have brought them for sale in the Calcutta and Madras markets; still I believe that some stallions of the required shape and make might be obtained thence, though there would be some doubt as regards their pedigree.

"It therefore remains that the most suitable stallions of these different classes that can be secured should be supplied. A perfectly-made horse may be seen once in a lifetime; but, judging from what is written on the subject, it might be supposed that horses, like bullets, can be turned out from a mould."

Cost of keep, &c.

14. In Appendix V. the total cost per annum of feeding, including road expenses attendant upon transfers, construction and repairs of district stables, cost of stable gear, &c., of stallions in the Bengal and Bombay Presidencies, is noted.

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noted. The general average during the last eight years is found to be as follows:—

Presidency.	In 1877-78.	In 1878-79.	In 1879-80.	In 1880-81.	In 1881-82.	In 1882-83.	In 1883-84.	In 1884-85.
	<i>Rs. a. p.</i>							
Bengal - - -	253 5 2	286 - 3	290 2 4	270 11 11	235 10 11	232 2 2	282 8 9	228 13 3
Bombay - - -	- - -	442 9 -	358 5 -	301 1 -	272 8 7	285 9 11	319 10 8	339 5 3

It will be observed that, while there has been a decrease in cost in North-Western Provinces and Rajputana, the rate in the Panjáb remains steady. In the Bombay Presidency an increase of *Rs.* 19.10.7. per stallion is shown, and is attributed to enhanced rates of forage in some districts, and to more numerous transfers of horses. I consider that the rates, on the whole, may be accepted as moderate.

15. Instead of showing, as in former years, the maps of horse and mule-breeding operations as Appendices, they will be found in a pocket of the cover of each copy of this Report. The depot and district stallions' stables are marked on the maps; horse stands in red, and donkey stands in green; thus, at a glance, the area of horse and mule-breeding operations can be seen.

Maps of horse-breeding operations.

16. The number and classes of the several kinds of horse stallions, and the number of branded mares in each district, will be found recorded as an Index to the map in Appendix VI. Similarly, in Appendix VII. will be found particulars regarding the number and classes of donkey stallions employed.

17. At the close of the official year 1883-84 there were 14,559 branded mares for horse-breeding in the Bengal Presidency, and 2,449 for horse and pony-breeding in the Bombay Presidency. An abstract of the above gives the following figures:—

Branded mares: number of.

Bengal Presidency - -	North-Western Provinces	4,323	
	Panjáb - - - -	10,236	14,559
Bombay Presidency - -	Deccan - - - -	729	
	Gujarat and Kathiawar - -	959	
	Sind and Cutch - - - -	682	
	Biluchistan - - - -	79	2,449

18. During the year 1884-85 more mares were branded, as noted below:—

Bengal Presidency - -	North-Western Provinces -	904	
	Panjáb - - - -	1,644	2,548
Bombay Presidency - -	Deccan - - - -	68	
	Gujarat and Kathiawar - -	350	
	Sind and Cutch - - - -	178	591

In the Panjáb 193 branded mares were received by transfer from other districts.

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19. Branded mares have been struck off the registers for the reasons noted below :—

	Bengal.	Bombay.
Died - - - - -	559	17
Sold - - - - -	311	6
Stolen - - - - -	23	—
TOTAL - - - - -	892	22

20. On the 31st March 1885 the number of branded mares remaining on the registers, as shown in Appendix VIII., was as follows :—

Bengal Presidency - -	North-Western Provinces -	5,657	16,407
	Panjáb - - - - -	10,750	
Bombay Presidency - -	Deccan - - - - -	776	3,018
	Gujarat and Kathiawar -	1,308	
	Sind and Cutch - - -	855	
	Biluchistan - - - - -	79	

Total number of mares inspected.

21. Referring to paragraph 38 of last year's Report, an Appendix was given showing the total number of mares inspected, approved, and branded since the system of branding was commenced. I do not consider it necessary to any longer continue furnishing this statement.

Progress in horse-breeding.

22. The executive officers of the Department, in their reports on the several districts, with reference to the progress or otherwise in horse-breeding, note to the following effect. Mr. Glover, the Assistant Superintendent, Horse-Breeding Operations, North-Western Provinces and Rajputana, states: "Horse-breeding is progressing satisfactorily in the districts of Bulandshahr, Meerut, Muzaffarnagar, Saháranpur; and, owing to improvement during the year under report, Aligarh may now be placed in that category. The districts most backward are Muttra, Agra, Etah, Moradabad, Budaun, Bijnor, Bareilly, and Sháhjahánpur; and more particularly so, Bareilly and Sháhjahánpur. The majority of these latter districts cannot, from many circumstances connected with them, ever hope to become such horse-breeding districts as Meerut, Muzaffarnagar, or Saháranpur; nevertheless, horse-breeding in them can be greatly improved and extended if the same support and encouragement is given to the industry by district authorities as is awarded to other pursuits, agricultural and industrial."

23. The Annual Report of Horse and Mule Breeding Operations in the Panjáb for 1884-85 has not been received, as noted in my letter marginally quoted; but by information gleaned from reports on district fairs and shows it appears that in the Kulu, Kohat, Bannu, Montgomery, and Peshawar districts horse and mule breeding are not progressing; but I believe that by steadily supporting these districts and receiving the hearty co-operation of the district officers, moreover, in the case of the Montgomery district, by instituting an annual horse show, &c., as proposed by Mr. Gladstone, C.S., when Deputy Commissioner of the district, much may yet be done in developing both horse and mule breeding.

24. The Officiating Superintendent has recorded in the Annual Report of Horse-Breeding Operations of the Bombay Presidency the progress or otherwise that has taken place, and, referring to Bombay Government Resolution on the Report,

report,* I am of opinion that Mr. Grainger should have given more of his time during the year to breeding districts in the British territory, and less to foreign provinces. Moreover, on referring to Appendix XXI. of his report, I can but arrive at the opinion that he might have covered more ground during the year. The climate of the Deccan, during the monsoon, is at times very favourable for touring, and I observe that from April to November 1884 the only inspecting duty recorded as having been effected was attending, during September, the Horse Show at Poona. I have therefore suggested to Mr. Grainger that he should endeavour to utilize his time in a more satisfactory manner.

25. The fact of district officers having recorded that some of the breeding districts in Bombay have not been visited by the Officiating Superintendent should act as an incentive to Mr. Grainger to endeavour, if possible, to no longer leave any district unvisited.

26. The Officiating Superintendent refers to the aid afforded him by the civil officers in Palanpur, Kaira, Cutch, Sind, and Ahmadabad, during his tour of inspection, and notes that his Highness the Rao at Mundra intends holding an annual horse show in that district, and states that Colonels Phillips and Goodfellow of the Political Agency of Cutch take the greatest interest in developing horse-breeding.

27. Care is exercised with the view of raising the standard of mares, and with reference to this subject a circular letter* has been addressed to the Assistant Superintendents, Horse-breeding Operations, in Bengal as follows:—

“Mares less than 14 hands 2 inches in height are not to be branded with the Government brands (V. I. or B. M.) unless they are specially superior. Any mare, under the undermentioned standard height, that may be branded should be reported to the office of the General Superintendent, Horse-breeding Operations in India, giving a register and full description of mare and reasons why she has been branded.”

“In districts where Government stallions have been supplied for not less than six years, only the mares or fillies got by Government stallions are to be branded, excepting any very superior country mares, or Walers, or others of foreign blood, and considered in every point fit for the brand. Thus, by carefully acting on the lines above indicated, the stamp of mare will gradually improve; indeed, the broad mares will be of the improved stock, and so every succeeding generation will prove of superior stamp. It is gratifying to find, in many districts, breeders becoming aware of the good to be derived by keeping fillies of improved stamp for brood work; but some men, instead of retaining any of their fillies by Government stallions, are selling them and bringing common country mares for the brand. It is to prevent these malpractices that this order is now issued, and it is directed that it may be most strictly acted up to.”

I have pleasure in recording my belief that the standard is being gradually improved, and that more fillies out of branded mares by Government stallions are annually being branded for brood purposes.

28. The number of mares covered by Government stallions during the last seven years is stated to have been as follows:—

Y E A R.	Bengal Presidency.	Bombay Presidency.
1878-79	4,200	1,825
1879-80	5,145	1,881
1880-81	6,005	2,185
1881-82	7,020	2,403
1882-83	8,357	2,508
1883-84	9,280	1,792
1884-85	9,984	1,884

Thus, a steady increase is shown in Bengal and an improvement in Bombay.

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29. In Bengal the number of stallions employed was 277 against 284 last year. The general average of mares covered, as shown in Appendix, IX, is —

In North Western Provinces	-	-	-	-	-	-	-	-	-	41.58
In Punjab	-	-	-	-	-	-	-	-	-	33.00
In the Bombay Presidency	-	-	-	-	-	-	-	-	-	29.88

The Assistant Superintendent, Horse-breeding Operations, North-Western Provinces and Rajputana, states: "The high average of coverings is sufficient to show thoroughly the stallions have been utilised; and if it, together with the number of brandings and coverings, all of which exceed those of any previous year, are to be taken as any criterion, horse-breeding has certainly made considerable strides during the year under report."

As most careful measures are being adopted to ensure the due registering of coverings in Bengal, it is expected that the percentage of coverings per stallion next year will prove greater. In Bombay the low rate of coverings per horse is attributable to the branding of mares not having been effected in some of the districts, *vide* paragraph 25 above.

Produce. Number of—

30. Last year the general percentage of produce to mares covered in 1882-83 in Bengal was 33.70; this year, to mares covered in 1883-84, it is 33.54. In Bombay 34.16 compared to 24.09 last year. Mr. Glover, in his report on the North-Western Provinces, states: "The foalings of the year have also proved satisfactory, and show about the ordinary proportion to the number of coverings of which they are the result. 1,155 foals, or an increase over last year of 202, were dropped during the year in the North-Western Provinces circles, these being the result of the previous year's coverings, which number 3,524, or, as is usual, about one-third of the mares covered dropped foals. In Hissar, Rohtak, and Umballa, 116 foalings took place to the 319 coverings of the previous year. The proportion of foalings to coverings has often struck me as not being so good as it ought to be; but, as I have before pointed out, this is accounted for by many mares no doubt being covered when not properly in season, and also very often to the want of a little care and quiet immediately after covering. I again took every opportunity of explaining to breeders the reasons I thought which accounted for many of their mares not proving in foal, and I laid particular stress when talking to them about having their mares in full season before giving them the stallion."

Annual inspection of brood stock.

31. The Assistant Superintendents during the year proceeded on tour in several parts of their respective districts; also attended at all horse fairs and shows held in the provinces within their jurisdiction. Every district was not visited because the Assistant Superintendents have not the time to go to all annually. Referring to this subject, Mr. Glover states, "The only districts of the North-Western Provinces in which horse and mule-breeding operations are carried on, and which were not regularly visited by me on my last cold weather tour, were Bijnor, Budaun, Moradabad, Bareilly, and Sháhjahánpur; consequently these districts will be among the first to receive my attention on my next tour."

32. The Officiating Superintendent, Horse-Breeding Operations, Bombay Presidency, has described in his report the districts of that Presidency which he visited, and the subject has been referred to in paragraphs 24 and 25 above.

Cast mares sold to *bond fide* breeders.

33. As noted in Appendix X., 113 cast mares of British Cavalry and Artillery were handed over to the department and sold by auction to *bond fide* horse and mule-breeders at the prices recorded.

34. This department has recommended* that it is not advisable to continue selling by auction cast mares to breeders, for several reasons, the chief being that now many improved fillies and mares can be bought by breeders in the ordinary market, in fact that there is now no scarcity of mares

and

* No. 80 M.D., dated 13th December 1884, to Secretary to Government of India, Military Department.

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and many of the cast mares recently sold have, it is believed, not been kept for breeding purposes. The Government of India have accordingly ordered the discontinuance of sales of cast mares by this department to breeders.*

* No. 85 D., dated 13th January 1885, from Secretary to Government of India, Military Department.

35. The number of country-bred remounts purchased during the year will be found in Appendix XI. Briefly it may be stated thus:—

Number of country bred Remounts purchased.

	Bengal Presidency.	Bombay Presidency.
Army Remount Department - - - - -	130	—
Bengal Native Cavalry - - - - -	926	—
Punjab Native Cavalry - - - - -	250	—
Police Department - - - - -	65	231
Bombay Native Cavalry - - - - -	—	55
TOTAL - - -	1,371	286

Of the 1,657 purchased, 574 were entires, 406 geldings and 677 mares and fillies. Of the geldings, 392 were purchased in Bengal, and only 14 in the Bombay Presidency. It is satisfactory to find that nearly the same number of geldings as horses were purchased; and taking the entires and geldings together, viz., 980, it is gratifying to be thus practically assured that many improved fillies are now reserved for brood purposes, as only 677 mares and fillies were sold for army work.

36. In former reports the fact of the pedigrees of many remounts purchased not being obtained and recorded has been brought to notice, and now I regret to have to state that the pedigrees of 907 remounts purchased last year are noted as "Not known." As certificates containing the pedigree of every colt and filly by Government stallions are invariably given to every owner of a mare covered by a Government stallion, remount purchasers should be enjoined to always ask for the certificate of every colt and filly said to be by a Government horse, in order that the classes of sires that produce the most remounts may become known.

Pedigrees of Remounts.

37. I have addressed* the Adjutant-General of the Army on this subject, soliciting that his Excellency the Commander-in-Chief in India may be pleased to direct purchasing officers to be most careful in endeavouring to obtain certificates of birth which contain the pedigree of every head of stock got by Government stallions. Again, in order that regimental officers may form an opinion of the relative worth of different classes of remounts got by Government stallions, I have requested† the Director of Army Remount Operations for India to direct that the pedigree of remounts, as obtained, may be noted on the registers when the horses are issued to corps and batteries.

* No. 490 M., dated 13th February 1886, to Adjutant-General in India.

† No. 17 D., dated 2nd March 1886, to Director of Army Remount Operations for India.

38. It is believed, from the reports of purchasing officers, that the general opinion prevails that country-bred remounts obtained are annually improving in stamp, and that now very superior animals are obtainable. The good prices given, not only by remount officers but by the public, offer proof that better animals are secured. Country-breds are now taken to the Calcutta market, and the improvement in the quality of the stock is there acknowledged

Improvement of horse stock

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Metropolitan horse fairs and district horse shows of 1884-85.

39. The following metropolitan horse fairs and district horse shows have been held during the year, and the amounts specified were granted in prizes by the Imperial Government :—

NORTH-WESTERN PROVINCES:		<i>Rs.</i>	<i>a.</i>	<i>p.</i>
Aligarh Horse Show	- - - - -	1,000	-	-
Batesar Horse Fair	- - - - -	1,194	-	-
Bulandshahr Horse Show	- - - - -	1,250	-	-
Hardwár Horse Fair	- - - - -	1,200	-	-
Nauchandi (Meerut) Horse Show	- - - - -	1,000	-	-
Saháranpur Horse Show	- - - - -	1,000	-	-
PANJAB:				
Amritsar Horse Show	- - - - -	500	-	-
Dera Ghazi Khan Horse Show	- - - - -	2,000	-	-
Gujrat Horse Show	- - - - -	1,000	-	-
Jalalabad Horse Show	- - - - -	600	-	-
Jhang Horse Show	- - - - -	650	-	-
Lahore Horse Show	- - - - -	1,000	-	-
Multan Horse Show	- - - - -	2,000	-	-
Muzaffargarh Horse Show	- - - - -	750	-	-
Rawal Pindi Horse Fair	- - - - -	2,000	-	-
Rohtak Horse Show	- - - - -	300	-	-
Shahpur Horse Show	- - - - -	750	-	-
RAJPUTANA.				
Pokhur Horse Fair	- - - - -	890	-	-
Tezaji Mule Fair	- - - - -	40	-	-
TOTAL - - <i>Rs.</i>		19,124	-	-
For the best runs kept up by zemindars		480	12	-
GRAND TOTAL - - <i>Rs.</i>		19,604	12	-

Details as to numbers and quality of stock exhibited have been given in the Annual Report on Horse Fairs and Shows of 1884-85. It is requested that the latter Report may be attached to this for facility of reference.

40. In the Bombay Presidency prizes were awarded at the undermentioned horse shows as detailed below :—

		<i>Rs.</i>	<i>a.</i>	<i>p.</i>
Poona	- - - - -	5,602	-	-
Ahmednagar	- - - - -	955	-	-
Rajkot	- - - - -	370	-	-
Shikarpur	- - - - -	4,150	-	-
Hyderabad	- - - - -	3,102	-	-
Ahmedabad	- - - - -	3,601	-	-
TOTAL - - <i>Rs.</i>		17,780	-	-
Add other expenses incurred		6,705	10	9
GRAND TOTAL - - <i>Rs.</i>		24,485	10	9

Of the total amount, 8,370 rupees were contributed by the Bombay Government, and the balance granted from local funds and subscriptions, and thus we have proof of the hearty co-operation of district officers, boards and native gentry in the breeding districts of that Presidency.

41. Castration

41. Castration of colts is gradually becoming more commonly practised. The Government salutris have, as a rule, zealously conducted their duties; the number of colts operated on by them during the last nine years has been,—

	Bengal Presidency.	Bombay Presidency.
In 1876-77 -	88	—
" 1877-78 -	122	—
" 1878-79 -	255	—
" 1879-80 -	495	—
" 1880-81 -	561	—
" 1881-82 -	782	11
" 1882-83 -	918	71
" 1883-84 -	950	129
" 1884-85 -	1,161	82

As shown in Appendix XII., 211 more castrations last year than the previous year took place in Bengal; but in Bombay 47 less than in 1883-84. The Officiating Superintendent has been enjoined* to adopt measures with the view of inducing owners to have their colts castrated.

42. The Assistant Superintendent, Horse-breeding Operations, North-Western Provinces and Rajputana, in his report on this head, states—"Those districts which appear slow in adopting castration are nevertheless progressing, and the districts of Delhi, Agra, and Etah, mentioned in my Annual Administration Report of last year as being the most backward in castration, show improvement, and will, I have no doubt, in time take to it freely. Indeed, nothing can be more satisfactory than the progress of this work in some districts, and I have no doubt but that with good and energetic salutris, castration can be introduced into most districts of these parts; for owners and breeders all over the North-Western Provinces are becoming aware of the fact that a gelding is a more saleable and valuable animal than an entire. More substantial evidence of the increase and growing popularity of castration cannot, I think, be found than in the large increase in the gelding class at all fairs and shows for the year. During 1883-84, two hundred and twenty-two (222) geldings, all told, competed for prizes; whereas for the year 1884-85, three hundred and fifty-six (356) came up, or an increase over last year of 134. The effect of castration on young stock scarcely needs comment, meaning, as it does, improvement in every way, and the large proportion of geldings among the remounts purchased during the year at the fairs and shows of this province is evidence of the fact, and the good result of the number of mares and fillies purchased being correspondingly small, should not be overlooked."

43. The demand on the part of horse owners for the services of castrators becomes greater annually. At the present time several districts are without salutris, as the supply of these men from the Veterinary School at Lahore is not as yet equal to the demand; but I have placed myself in communication with the principal of the school, requesting him to recommend men as soon as qualified for the posts.

44. In paragraph 94 of last year's Report the subject of pony-breeding was referred to by the Assistant Superintendent, Horse-breeding Operations, Punjab, advising that as so many pony mares are now used for mule-breeding, it will become necessary to encourage a continuance of pony-breeding, in order to keep up the required supply of pony mares. Mr. Glover, in his report of this year, refers to this subject as follows:—"Mule-breeding having grown to such unlooked for dimensions, I think the subject of pony-breeding needs consideration; for, except something is done towards keeping up the supply of pony mares, mule-breeding must, of course, itself in time decline. Before the introduction of mule-breeding there was no lack of ponies in these parts, but so many pony mares having become absorbed in mule-breeding, the supply must yearly be growing seriously small."

"I would suggest that, instead of increasing our present number of donkey stallions, some pony stallions be obtained; and some arrangements could be come to as regards their serving pony mares, which would not seriously interfere with mule-breeding. Arab and country-bred pony stallions, with perhaps a few water ponies, would be required, and they could, I think, be purchased for a very small outlay, stallions of superior stamp not being, I think, absolutely necessary."

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45. There is much worthy of note in the above remarks, but though mule-breeding has certainly very much spread during the last six or seven years; it must be remembered that many owners of horse and pony mares still object to making them mule breeders; thus a supply of mares to breed mules may be counted on for some time to come; moreover, as mule-breeding is so remunerative, breeders of this class of stock will take care to supply themselves with mares, and so, for the present, a dearth of mule-breeding mares is not so probable as might at first thought be expected. As the mule is so valuable, so will breeders bestir themselves to possess mares to breed mules; hence pony-breeding is not likely to become lost sight of.

MULE-BREEDING OPERATIONS.

46. On the 31st March 1884 donkey stallions in numbers and breeds were present as follows:—

Donkey stallions.
Number of—

	Bengal Presidency.	Bombay Presidency.
Spanish - - - - -	15	1
Arab - - - - -	111	5
Bokhara - - - - -	12	1
Panjabi - - - - -	22	2
Italian - - - - -	72	3
French - - - - -	8	—
Persian - - - - -	31	3
Herati - - - - -	2	—
Home-bred - - - - -	8	—
TOTAL - - - - -	281	15

Increase during
the year.

47. During the year under report the undermentioned donkey stallions were received:—

	Bengal Presidency.	Bombay Presidency.
By importation - - - - -	24	—
{ Italian - - - - -	8	—
{ French - - - - -	32	—
Purchased in India - - - - -	4	—
{ Panjabi - - - - -	6	—
{ Persian - - - - -	10	—
TOTAL - - - - -	42	—

Decrease during
the year.

48. Casualties amongst donkey stallions are shown in Appendix XIII. They have been:—

	Bengal Presidency.	Bombay Presidency.
Died - - - - -	7	—
Destroyed - - - - -	3	—
TOTAL - - - - -	10	—

In Appendix XIV. the number of donkey stallions sold is shown, viz., two in Bengal and two in Bombay Presidency.

Number of donkey
stallions present.

49. The number of donkey stallions present at the close of the year was:—

	Bengal Presidency.	Bombay Presidency.
Spanish - - - - -	15	1
Arab - - - - -	106	3
Bokhara - - - - -	12	1
Panjabi - - - - -	24	—
Italian - - - - -	93	5
French - - - - -	14	—
Persian - - - - -	37	3
Herati - - - - -	2	—
Home-bred - - - - -	8	—
TOTAL - - - - -	311	13

50. The

50. The classification of donkey stallions present, as shown in Appendix XV., Classification is as follows :—

	Bengal Presidency.	Bombay Presidency.
Very good	39	5
Good	175	5
Fair	90	3
Indifferent	8	—
Bad	—	—
TOTAL	314	13

51. All the classes produce good mules, but doubtless the best mule getters are the Italians and Catalans. Mr. Glover states—“On the whole the stamp of donkey stallion in use is very satisfactory, and it would be hard to surpass, for the purpose of mule breeding, some of the Italian donkeys.” The home-bred donkeys out of Arab mares by Italian jacks are proving remarkably good animals, some being as good as the Italians.

Comparative merits of donkey stallions.

52. In Appendix VI. is given the cost of the feed, keep, &c., of donkey stallions in the several districts of the Bengal and Bombay Presidencies, where they have been stationed. The general averages per annum for the last six years are—

Cost of feed and keep of donkey stallions.

	Bengal Presidency.	Bombay Presidency.
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
In 1879-80	181 1 5	Not furnished.
„ 1880-81	141 1 4	- ditto.
„ 1881-82	105 9 2	- ditto.
„ 1882-83	107 11 1	233 9 -½
„ 1883-84	118 3 5	194 4 3
„ 1884-85	119 7 11	240 13 10

The increase in the average of Bengal is due to a greater number of transfers; and in Bombay it is dependent upon higher rates of forage and more numerous transfers.

53. It is satisfactory to find that more pony mares are yearly being brought to the donkey stallions. Last year, in Bengal, 11,153 visited the donkey stallions, and this year 12,551 coverings have been registered. In Bombay there are this year 294 against 209 last year.

Pony mares covered.

54. This department encourages donkey mares of good stamp being mated to Government donkey stallions that will not cover pony mares, with the view of improving the breed and obtaining country-bred donkey stallions for mule-breeding. In Bengal 893 donkey mares have been covered by donkey stallions during the year, against 800 last year.

Donkey mares covered by donkey stallions.

55. The returns of mule stock, which cannot be considered full and reliable, indicate, as shown in Appendix XVII., that in Bengal 2,799 mules were born this year, compared to 2,042 last year, and that the percentage of mules foaled to mares covered is 25.14 against 28.41 last year. In Bombay only 28 foals are shown as having been born to 119 coverings,—not by any means a satisfactory report, and probably the small number is attributable to owners having allowed their mares to be mated when not in season.

Mule stock. Number of—

56. Mr. Lamb having proceeded on furlough on 4th July 1884—*vide* paragraph 113 of last year's Report,—charge of the office of General Superintendent, 323.

Duties performed by officers of the Department.

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Horse-breeding Operations, was made over to Mr. Anderson, whose movements during 1884-85 are detailed below :—

1884:					
July	26 to 28	- -	Babugarh	- - -	Inspection of depôt and stables.
August	6 " 8	- -	"	- - -	
"	13 " 16	- -	"	- - -	
September	5 " 8	- -	Bombay	- - -	Purchasing stallions.
"	9 " 13	- -	Poona	- - -	
"	14 " 16	- -	Bombay	- - -	
"	17 " 23	- -	Poona	- - -	
"	24 " 26	- -	Meerut	- - -	Returned to headquarters.
October	6 " 8	- -	Umballa	- - -	Purchasing stallions and attending horse fairs and shows.
"	9 " 12	- -	Rohtak	- - -	
"	17 " 21	- -	Amritsar	- - -	
"	27 " 29	- -	Batesar	- - -	
"	30 and 31	- -	Pokhur	- - -	
November	1 to 4	- -	Meerut	- - -	

57. On the 4th November 1884 I returned to India from furlough and received over charge of the office of General Superintendent, Horse-breeding Operations, from Mr. Anderson on the 5th idem. The places visited by me on tour of inspection duty are shown below, with detail of dates :—

1884:					
November	6 to 10	- -	Bombay	- - -	Visiting dealers' stables in Bombay, and inspection of depôt and stables at Babugarh.
"	11 " 13	- -	Ajmere	- - -	
"	14 " 17	- -	Meerut	- - -	
December	18	- -	Babugarh	- - -	
"	19 and 20	- -	Saháranpur	- - -	Inspection of depôt and stables at Babugarh and Rawalpindi and tour of inspection.
"	21 to 24	- -	Lahore	- - -	
"	25 " 27	- -	Rawalpindi	- - -	
"	28 " 30	- -	Cawnpore	- - -	
1885:					
January	1 to 29	- -	Calcutta	- - -	On duty connected with the Department of Horse-breeding Operations.
February	1 " 3	- -	Babugarh	- - -	Attending horse fairs and shows.
"	4 " 8	- -	Saháranpur	- - -	
"	10 " 13	- -	Aligarh	- - -	
"	15 " 19	- -	Bulandshahr	- - -	
"	21 and 22	- -	Multan	- - -	
"	23 " 24	- -	Dera Ghazi Khan	- - -	
"	25 " 26	- -	Muzaffarnagar	- - -	
"	27 " 28	- -	Multan	- - -	
March	1 to 6	- -	Jhang	- - -	Attending horse fairs and shows and inspection of Babugarh depôt and stables.
"	8 and 9	- -	Gujrat	- - -	
"	12 " 13	- -	Sháhpur	- - -	
"	14 " 15	- -	Meerut	- - -	
"	22 to 31	- -	Babugarh	- - -	

58. Mr. B. L. Glover, Assistant Superintendent, Horse-breeding Operations, North-Western Provinces and Rajputana, reports:—"The districts through which I marched during my tour were Etah, Agra, Muttra, Delhi, Gurgaon, Aligarh, Bulandshahr, Meerut, Muzaffarnagar, Saháranpur, Rohtak, Kurnal, and Umballa and I visited Hissar, Bareilly, and Moradabad by rail. I also attended the Saháranpur, Aligarh, Bulandshahr, and Meerut Horse Shows, as well as the Batesar and Hardwár Metropolitan Horse Fairs. Altogether I was 153 days under canvas, covered a distance by road of 1,396 miles and by rail of 1,370, and in the numbers of days under canvas as above stated, I made 39 halts.

59. The undermentioned horse-breeding districts in the Panjab were visited during 1884-85 by Messrs. Anderson and Nunn. The latter officer officiated as Assistant Superintendent, Horse-breeding Operations, Panjab, during the time

time Mr. Anderson held charge of the office of General Superintendent, Horse-breeding operations :—

Hazara.	Gurdaspur.
Peshawar.	Hoshiarpur.
Bannu.	Jullundur.
Shahpur.	Montgomery.
Gujranwala.	Ferozepur.
Gujrat.	Jhang.
Sialkot.	Dera Ismail Khan.

All the horse fairs and shows in the Panjab were also attended.

60. I have to tender my thanks to the Assistant Superintendents,* Horse-breeding Operations, North-Western Provinces and Rajputana and Panjab, for the zealous manner in which they have conducted their duties.

* Mr. B. L. Glover.
Mr. J. Anderson.
Mr. J. A. Nunn.

61. To civil officers of districts in which horse-breeding operations are carried on, I have much pleasure in recording thanks, more especially to those of Meerut, Bulandshahr, and Aligarh in the North-Western Provinces, and Dera Ghazi Khan, Muzaffargarh, Jhang, Gujrat, Shahpur, and Amritsar, in the Panjab; and I beg to bring to the notice of the Government of India the names of the following civil officers who have most cordially co-operated in developing the horse and mule-breeding industries in their respective districts :—

F. N. Wright, Esq., c.s.	- - - - -	Meerut.
Major T. J. C. Plowden, C.I.E.	- - - - -	Dera Ghazi Khan.
A. Cadell, Esq., c.s.	- - - - -	Aligarh.
J. C. Brown, Esq., c.s.	- - - - -	Muzaffargarh.
Major R. T. M. Lang	- - - - -	Amritsar.
A. Meredith, Esq., c.s.	- - - - -	Gujrat.
M. L. Dames, Esq., c.s.	- - - - -	Jhang.
D. F. Addis, Esq., c.s.	- - - - -	Bulandshahr.
J. W. Gardiner, Esq., c.s.	- - - - -	Shahpur.

62. In accordance with instructions contained in Military Department letter, No. 781 D., dated 25th March 1880, the original statement, showing the cost (military) of the department during 1884-85, received from the Controller of Military Accounts, and that of the civil charges, received from the Comptroller of India Treasuries, are attached, aggregating Rs. 2,80,991-8-3, as detailed below :—

Cost of Department during 1884-85.

	Rs. a. p.
A.—Military charges - - - - -	37,404 8 10
B.—Civil charges - - - - -	2,43,586 15 5
TOTAL - - -	2,80,991 8 3

But with reference to the Statement B., furnished by the Comptroller of India Treasuries, it will be observed that the sum of Rs. 1,449-8-1 has been included on account of feed and keep of stallions in "Central India." As the stallions in that Agency are not borne on the strength of this department, that amount should be deducted from the charges against the Department of Horse-breeding Operations. The net expenditure during 1884-85, therefore, amounts to Rs. 2,79,542-0-2.

63. The total cost in the Bombay Presidency is Rs. 57,753-10-3. The expenditure has been divided into two separate heads, as follows :—

	Rs. a. p.
I.—Cost of supervision and establishment -	11,737 14 2
II.—Purchase and keep of stallions, prizes, &c., awarded at horse shows - -	46,015 12 1
TOTAL - - -	57,753 10 3

Of the above, the sum of Rs. 9,845-1-6 is debited to local funds, Rs. 45,881-5-10 to provincial revenues, and 2,027-2-11 to the Biluchistan Agency.

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64. The following facts can be gathered from the above report :—

Conclusion.

- (a) That the number of branded mares on the registers is gradually increasing year by year.
- (b) That the number of mares covered by Government stallions is yearly increasing.
- (c) That castration of colts is becoming more generally adopted by the gradual increase in the number of operations.
- (d) That the health of the Government stallions has been remarkably good, the mortality having been not more than 1.27 per cent. in Bengal.
- (e) That the horse stock of India is becoming year by year improved.
- (f) That the remounts obtained have been considered good.
- (g) That the horses bred are generally acknowledged to be superior.
- (h) That the enhanced prices realised by country-bred-stock prove their enhanced value.
- (i) That horse and mule-breeding in most of the districts where they are carried on are found remunerative industries.
- (j) That the support rendered by Government in supplying the best of stallions obtainable for approved mares, and granting prizes for the mares and stock produced by them, is attended by satisfactory results.
- (k) That breeders are gradually becoming rearers, is proved by young stock of two to three years of age being now more frequently found in the possession of breeders at fairs and shows.

I trust the Imperial Government will consider that the work of the Department of Horse and Mule-breeding Operations is attended with satisfactory results.

Meerut,
9 March 1886. }

J. H. B. Hallen, General Superintendent
Horse-breeding Operations in India.

APPENDIX I.

HORSE-BREEDING OPERATIONS.

GENERAL ABSTRACT of CASUALTIES of HORSE STALLIONS in the BENGAL and BOMBAY PRESIDENCIES during the Official Year 1884-85.

Presidency and Provinces.	Died.					Destroyed.					GRAND TOTAL.	Average Deaths.	Average of Stallions destroyed.	General Average.	
	Thorough-bred English.	Half-bred English, including Norfolk Trotters.	Arab.	Pegu.	TOTAL.	Thorough-bred English.	Half-bred English, including Norfolk Trotters.	Arab.	Stud-bred.	TOTAL.					
BENGAL.															
North-Western Provinces.	-	3	-	-	3	1	1	2	3	7	10	1.27	3.83	5.11	
Rajputana	-	-	-	-	-	-	-	-	-	-	-				
Panjab	1	-	-	-	1	1	-	2	2	5	6				
BOMBAY.															
Deccan	-	1	1	1	3	-	-	5	-	5	8	6.66	8.00	14.66	
Gujrat and Kathiawar	-	-	1	-	1	-	-	-	-	-	1				
Sindh and Kutch	-	-	1	-	1	-	-	1	-	1	2				

APPENDIX II.

HORSE-BREEDING OPERATIONS.

CASUALTY ROLL of HORSE STALLIONS in the BENGAL and BOMBAY PRESIDENCIES during the Official Year 1884-85.

Number.	Brand Number.	English Name.	Native Name.	Caste.	Description of Casualty.	Date of Casualty.	Nature of Casualty.
BENGAL PRESIDENCY.							
1	1810	Ipawich - - -	Khutowih - - -	N. T. -	Died -	29 Sept. 1884	Impaction of colon and ruptured stomach.
2	2018	Amber - - -	Sandul - - -	" -	" -	19 Oct. "	Fever accompanied with dysentery.
3	1828	Black Perfection -	Sadba - - -	" -	" -	19 Dec. "	Anthrax fever.
4	1683	Esprit - - -	Afghan - - -	Stud-bred	Destroyed -	29 April "	Incurably affected with canker.
5	1891	- - -	Faris - - -	Arab -	" -	7 Sept. "	Old age. Incurable laminitis and sprain of the flexor tendon of the near fore limb.
6	2065	- - -	Shaida - - -	" -	" -	7 Sept. "	Incurable palsy.
7	1849	Acrobat - - -	Chunchul - - -	N. T. -	" -	19 Nov. "	Incurable pumiced feet.
8	1660	Eros - - -	Jaiphal - - -	Stud-bred	" -	30 Dec. "	Old and worn out.
9	1750	Bugle - - -	Turam - - -	T. B. E. -	" -	1 Jan. 1885	- - ditto.
10	1485	Exercise - - -	Kaddam - - -	Stud-bred	" -	13 Mar. "	- - ditto.
11	1945	Knighthood - - -	Kerut - - -	T. B. E. -	Died -	8 Aug. 1884	Congestion of lungs; died at Okara returning to depot.
12	1844	Mr. Snip - - -	Amir Singh - - -	" -	Destroyed -	10 Sept. "	Incurable palsy.
13	-	- - -	Sultan - - -	Arab -	" -	9 Sept. "	Old and worn out.
14	-	- - -	Masafir - - -	" -	" -	31 Dec. "	- - ditto.
15	1418	Extract - - -	Masala - - -	S. B. -	" -	9 Jan. 1885	- - ditto.
16	-	- - -	Nekbakt - - -	" -	" -	11 Mar. "	- - ditto.
BOMBAY PRESIDENCY.							
17	-	Starbeam - - -	- - -	Arab -	Died -	13 April 1884	(Enteritis) inflammation of the bowels.
18	-	Commissioner - - -	- - -	Pegu -	" -	4 May "	Choking.
19	-	- - -	Punhu - - -	Arab -	" -	29 May "	(Enteritis) inflammation of the bowels.
20	-	- - -	Mootrib - - -	N. T. -	" -	14 Feb. 1885	Pyæmia.
21	-	Don Juan - - -	- - -	Arab -	" -	27 Mar. "	Colic.
22	-	Caracas - - -	- - -	" -	Destroyed -	10 April 1884	Old and worn out.
23	-	- - -	Trimbakji - - -	" -	" -	3 June "	Injured back and loins.
24	-	Little John - - -	- - -	" -	" -	6 June "	Ringbone.
25	-	Anderson - - -	Maruti - - -	" -	" -	4 July "	Impotent.
26	-	- - -	Shikra - - -	" -	" -	22 Sept. "	Disease of loins and sheath.
27	-	- - -	Shahaji - - -	" -	" -	2 Oct. "	Droopy and general debility.

J. H. B. Hallen,
General Superintendent Horse-breeding Operations in India.

APPENDIX III.

HORSE-BREEDING OPERATIONS.

STATEMENT of HORSE STALLIONS sold during the Official Year 1884-85.

No.	Brand No.	English Name.	Native Name.	Class.	Date of Sale.	Name of Purchaser.	Amount Sold for.	REMARKS.
BENGAL PRESIDENCY.								
1	2044	Vivid	Zindadil	Norfolk Trotter	10 November 1884	His Highness the Maharaja of Bikanir.	£. 300 --	Sold for stud purpose.
2	1908	True Blue	Shoskh	"	15 October 1884	Syud Noor Khan Sirdar Bahadur.	Rs. 300 --	Unfit for stud work.
3	1036	"	Moosa	Arab	ditto	Ufzal Khan	" 250 --	Old and worn out.
4	"	Willie Scarlet	Chattoor	T. B. E.	ditto	Dr. Garratt	" 180 --	Unfit for stud work.
5	"	Blackbird	Runggeen	Norfolk Trotter	ditto	ditto	" 850 --	ditto.
6	"	"	Shaban	Arab	ditto	Syud Mohamed Umer Sirdar Bahadur.	" 510 --	ditto.
7	2035	Hetman	Munindar	Norfolk Trotter	9 November 1884	Raja Bikanir	£. 300 --	Sold for stud purpose.
8	"	Wildblood	Pakhera	"	26 March 1885	Nazar Ali	Rs. 1,250 --	Not a sure foal getter.
BOMBAY PRESIDENCY.								
9	"	Skitmlaher	"	Arab	18 April 1884	Not known	" 68 --	Old and worn out.
10	"	"	Hira	"	16 May 1884	ditto	" 155 --	Paralysis of hind-quarter.
11	"	Jim	"	"	17 July 1884	ditto	" 100 --	Old and worn out.
12	"	President	"	"	16 August 1884	Pirozsha Barjorji	" 54 4	Disease of testicles and scrotum.
13	"	Iron Duke	"	"	8 November 1884	Framji Ardesir	" 235 7 0	Impotent.
14	"	"	Sayal	"	13 January 1885	Mojor Heyland	" 515 --	Unfit for stud work.
15	"	Peeler	"	"	24 March 1885	K. S. Noormohamed Khan	" 70 --	Old and worn out.
16	"	"	Ul-Indee	"	ditto	ditto	" 117 --	ditto.

J. H. B. Hallen,
General Superintendent Horse-breeding Operations in Inda.

APPENDIX IV.

HORSE BREEDING OPERATIONS.

STATEMENT showing Classification and Distribution of HORSE STALLIONS attached to the DEPARTMENT of HORSE-BREEDING OPERATIONS in the BENGAL and BOMBAY PRESIDENCIES during the Official Year 1884-85.

CLASSES OF STALLIONS	BENGAL PRESIDENCY.														BOMBAY PRESIDENCY.																
	NORTH-WESTERN PROVINCES.				RAJPUTANA.				PANJAB.						DECCAN.					GUJRAT AND KATHIAWAR.				SIND AND CUTCH.				BILUCHISTAN.			
	Very Good.	Good.	Fair.	TOTAL.	Very Good.	Good.	Fair.	TOTAL.	Very Good.	Good.	Fair.	Bad.	TOTAL.	Very Good.	Good.	Fair.	Not seen.	TOTAL.	Very Good.	Good.	Fair.	Bad.	TOTAL.	Very Good.	Good.	Fair.	TOTAL.	Very Good.	Good.	Fair.	TOTAL.
Thorough-bred English	8	18	7	34	-	-	-	-	10	18	5	2	35	2	-	-	1	3	3	1	-	-	4	-	-	-	-	1	-	-	1
Half-bred English, including	23	31	12	66	-	-	-	-	37	25	9	-	71	3	1	-	1	5	1	-	-	-	1	4	-	-	4	1	-	-	1
Water	-	2	-	2	-	-	-	-	3	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Persian	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stud-bred	-	1	6	7	-	-	-	-	3	12	2	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkoman	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arab	1	5	10	16	-	-	-	-	19	26	14	-	59	10	13	6	-	29	5	4	3	1	13	6	5	1	12	1	-	-	1
TOTAL	33	57	35	125	-	-	-	-	74	82	30	2	188	15	14	6	2	37	9	5	3	1	18	11	5	1	17	3	-	-	3
TOTAL in each Presidency	313														75																

J. H. B. Hallen,
General Superintendent Horse-breeding Operations in India.

APPENDIX V.

HORSE-BREEDING OPERATIONS.

STATEMENT showing Cost of FEED, KEEP, ATTENDANTS, &c., &c., of HORSE STALLIONS in the BENGAL and BOMBAY PRESIDENCIES during the Official Year 1884-85.

Presidency, Province, and District.	Number of Stallions or Days.	Total Annual Cost.	Average per Horse Stallion per Annum.	General Average in each Province.	Remarks.
BENGAL PRESIDENCY.					
NORTH WESTERN PROVINCES.					
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	
Babugarh Depôt - - - - -	10,910	5,004 14 3	187 8 2	—	
Meerut - - - - -	8,792	2,448 11 -	235 2 7	—	
Bulandshahr - - - - -	2,669	1,739 - 6	237 13 1	—	
Saharanpur - - - - -	4,717	3,027 1 9	234 3 9	—	
Muzaffarnagar - - - - -	4,726	2,967 1 -	229 2 5	—	
Aligarh - - - - -	2,794	1,918 11 7	260 10 6	—	
Muttra - - - - -	700	457 15 6	238 12 9	—	
Agra - - - - -	865	238 7 9	233 7 9	—	
Etah - - - - -	817	555 4 8	248 1 3	—	
Shājichāpur - - - - -	1,184	757 3 -	231 7 5	—	
Budaun - - - - -	1,410	923 7 9	239 13 4	—	
Barilly - - - - -	732	470 14 6	234 12 11	—	
Moradabad - - - - -	1,451	960 1 9	236 7 9	—	
Bijnor - - - - -	345	193 - 8	193 - 8	—	
Gurgaon - - - - -	624	418 15 6	245 1 1	—	
Delhi - - - - -	723	460 2 -	232 4 7	—	
Kurnal - - - - -	2,170	1,255 3 6	211 2 1	—	
Rohtak - - - - -	1,460	968 13 6	242 3 4	—	
Hisar - - - - -	1,502	1,030 12 10	255 12 4	—	
Umbaila - - - - -	1,174	717 3 11	222 13 11	—	
Add charges for gear purchased - - - - -	-	727 4 -	—	—	
TOTAL - - - - -	44,295	27,818 6 11	- - -	229 3 8	
RAJPUTANA.					
Oodeypur - - - - -	285	188 12 6	239 3 4	—	
Jhalrapatan - - - - -	280	128 7 11	180 6 2	—	
TOTAL - - - - -	545	315 4 5	- - -	211 2 4	
PINJAB.					
Hazare - - - - -	2,369	1,511 8 6	232 13 10	—	
Rawalpindi - - - - -	10,550	3,880 10 3	232 12 3	—	
Peshawar - - - - -	730	483 12 3	241 14 1	—	
Muridan - - - - -	365	232 7 6	232 7 6	—	
Jhelum - - - - -	2,675	1,553 14 2	212 - 5	—	
Gujrat - - - - -	3,127	1,840 1 7	214 12 6	—	
Gujranwala - - - - -	1,275	782 15 2	218 6 7	—	
Lahore - - - - -	3,285	1,867 4 3	206 5 9	—	
Sialkot - - - - -	1,540	896 9 10	212 8 2	—	
Gurdaspur - - - - -	1,123	583 1 10	189 - 3	—	
Hushiarpur - - - - -	843	438 11 9	188 13 5	—	
Jullandher - - - - -	1,095	614 5 4	204 12 5	—	
Ludhiana - - - - -	1,184	665 15 -	205 4 8	—	
Ferozepur - - - - -	2,098	1,292 - 6	224 12 5	—	
Shahpur - - - - -	3,129	1,775 - 4	207 - 11	—	
Jhang - - - - -	1,965	1,279 14 10	237 12 -	—	
Multan - - - - -	6,145	4,021 4 9	236 13 8	—	
Muzaffargah - - - - -	3,407	2,326 6 11	249 3 0	—	
Dera Ghazi Khan - - - - -	8,174	6,722 5 -	300 2 9	—	
Montgomery - - - - -	1,598	1,014 2 9	231 10 4	—	
Dera Ismail Khan - - - - -	850	536 14 5	230 8 10	—	
Banna - - - - -	154	71 1 2	198 7 2	—	
Amritsar - - - - -	1,825	1,065 8 5	217 1 8	—	
Probynshad - - - - -	362	174 14 4	176 5 6	—	
Lahore Veterinary School - - - - -	725	429 8 11	216 4 2	—	
Babugarh depôt - - - - -	7,028	3,882 6 5	201 10 1	—	
Add charges for gear purchased - - - - -	-	400 13 -	—	—	
TOTAL - - - - -	67,529	42,313 9 2	- - -	228 11 4	

APPENDIX V.—HORSE-BREEDING OPERATIONS—continued.

STATEMENT showing Cost of Feed, Keep, Attendants, &c.— continued.

Presidency, Province, and District.	Number of Stallions or Days.	Total Annual Cost.	Average per Horse Stallion per Annum.	General Average in each Province.	Remarks.
BOMBAY PRESIDENCY.					
DECCAN.					
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	
Sirur - - - - -	1,825	1,210 1 10	242 - 4	—	
Sopa - - - - -	1,453	1,054 10 8	264 14 11	—	
Baramati - - - - -	1,095	332 1 -	310 11 -	—	
Indapur - - - - -	791	562 10 -	259 9 10	—	
Ahmednagar - - - - -	3,043	2,678 1 11	329 11 3	—	
Sholapur - - - - -	730	661 15 2	330 15 7	—	
Kaladgi - - - - -	335	410 9 3	447 5 6	—	
Belgaum - - - - -	576	785 - 1	497 7 -	—	
Satara - - - - -	565	543 15 8	351 0 9	—	
Nasik - - - - -	730	504 12 5	252 0 2	—	
Khandesh - - - - -	2,770	1,917 8 8	252 10 -	—	
TOTAL - - - - -	13,918	11,261 6 8	- - - -	295 5 3	
GUJRAT AND KATHIAWAR.					
Kaira - - - - -	730	621 1 1	310 8 6	—	
Ahmedabad - - - - -	2,205	1,922 8 4	318 3 10	—	
Deesa - - - - -	834	841 10 10	412 1 11	—	
Kathiawar - - - - -	2,570	2,250 15 6	319 11 -	—	
TOTAL - - - - -	6,339	5,736 3 9	- - - -	330 4 8	
SINDH AND CATCH.					
Cutch - - - - -	1,460	1,331 10 7	332 14 7	—	
Karachi - - - - -	164	310 9 11	691 5 1	—	
Hyderabad - - - - -	730	736 11 11	368 5 11	—	
Thar and Parker - - - - -	271	359 10 8	464 6 9	—	
Shikarpur - - - - -	1,387	1,468 2 3	383 11 6	—	
Jacobabad - - - - -	1,344	1,020 3 7	506 0 8	—	
TOTAL - - - - -	6,396	6,117 - 11	- - - -	413 12 4	
BILUCHISTAN.					
Biluchistan - - - - -	1,391	2,027 2 11	531 14 11	531 14 11	

ABSTRACT.

Presidency.	Province.	Average in each Province.	Average of each Presidency.
Bengal	North-Western Provinces - - - - -	<i>Rs. a. p.</i> 229 3 8	} 228 13 3
	Rajputana - - - - -	311 2 4	
	Panjab - - - - -	258 11 4	
Bombay	Deccan - - - - -	295 5 3	} 339 5 3
	Gujrat and Kathiawar - - - - -	330 4 8	
	Sind and Cutch - - - - -	413 12 4	
	Biluchistan - - - - -	531 14 11	

J. H. B. Hallen.
General Superintendent Horse-breeding Operations in India.

APPENDIX IX.
HORSE-BREEDING OPERATIONS.

GENERAL STATEMENT showing Results of the Year's Operations during the Official Year 1884-85.

PRESIDENCY.	PROVINCE.	Number of Branded Mares, the Property of Breeders, remaining on 31st March 1885.		Number of Branded Mares, the Property of Breeders, Covered by Government Stallions.		Number of Government Horse Stallions employed at Stud Work.		NUMBER OF STOCK, THE PROPERTY OF BREEDERS, GOT BY GOVERNMENT STALLIONS, FOALLED DURING 1884-85, THE RESULTS OF COVERINGS OF 1883-84.																Grand Total.	Number of Mares Covered in 188-84, the Results of which are known.	Number of Government Stallions employed in 1883-84, the Results of which, with regard to Coverings, are known.	Percentage of Produce Foaled during 1884-85 to Mares Covered in 1883-84.	Average Number of Produce Foaled during 1884-85, per Stallion employed at Stud Work in 1883-84.						
		During 1883-84.	During 1884-85.	During 1883-84.	During 1884-85.	By Thoroughbred English.	By Half-bred English and Norfolk Trotters.	Cobs.				Fillies.				Grand Total.																		
								Australian.	Amb.	Stud-bred.	Feggs.	Total.	Thoroughbred English.	Half-bred English and Norfolk Trotters.	Australian.		Amb.	Stud-bred.	Feggs.	Total.														
Bengal	North Western Provinces	5,657	5,843	4,242	104	102	41-58	157	874	1	91	67	-	690	145	307	5	60	53	-	681	1,271	3,813	104	33-07	12-22								
	Rajputana	-	112	-	6	1	-	Statistics of last year's coverings not obtainable.																-	-	-	-	-	-	-	-	-	-	-
	Punjab	10,780	6,644	5,742	174	174	33-00	108	376	7	268	147	-	986	178	274	13	237	153	-	654	1,010	5,014	174	31-37	11-14								
	TOTAL	16,437	6,659	6,984	284	277	30-17	265	750	8	334	214	-	1,676	223	681	18	303	210	-	1,335	2,281	8,827	278	30-84	11-55								
Bombay	Deccan and Khandesh	776	1,008	*602	38-43	39-90	95-12	7	9	-	150	-	2	127	11	28	-	160	-	3	190	347	848	30-43	40-91	11-40								
	Gujarat and Kathiawar	1,303	330	371	10-88	11-30	8-85	6	-	-	38	-	-	31	3	8	-	34	-	-	40	71	280	6-98	25-35	7-99								
	Sind and Cutch	855	464	596	14-09	12-78	46-03	-	1	3	15	-	-	19	-	1	1	13	-	-	15	31	198	0-60	17-48	5-08								
	Biluchistan	79	-	115	-	3-00	38-33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
TOTAL	3,019	1,792	1,884	64-00	59-04	29-88	13	10	3	180	-	2	207	14	39	1	197	-	3	245	432	1,333	40-00	34-16	9-62									

* Khandesh returns not received.

H. B. Hallen,
General Superintendent of Horse-Breeding Operations in India.

BENGAL AND BOMBAY PRESIDENCIES, 1884-85.

APPENDIX X.

HORSE-BREEDING OPERATIONS.

STATEMENT showing Number of Cast Mares Received from CORPS and BATTERIES, and Sold to *bonâ fide* Breeders for Breeding Purposes during 1883-84.

Number.	Brand Number.	Colour.	From whence Received.		Date of Receipt.	Date of Sale.	Sold for Horses or Mule Breeding.	Name of Purchaser.	Price.	REMARKS.
			Corps and Batteries.	Station.						
BENGAL PRESIDENCY. North Western Provinces.										
1	85 Trop No.	Grey	J-2nd R.A.	Allahabad	4 April 1884	20 April 1884	Horse-breeding	Mustakeem Khan	15	
2	78 "	"	"	"	4 " "	20 " "	"	Actipul	42	
3	97 "	"	"	"	4 " "	20 " "	"	Hawkshun	32	
4	42 "	"	"	"	4 " "	20 " "	Mule-breeding	Resal Singh	11	
5	05-3889 } near saddle	Chestnut	E.A. R.H.A.	Meerut	17 " "	20 " "	Horse-breeding	"	14	
6	0 } near shoulder	Bay	9th Lancers	Unballa	23 " "	20 May "	"	Rao Omrao Singh	80	
7	T-2-08	"	J-2nd R.A.	Allahabad	21 " "	20 " "	Mule-breeding	Ramgopal	21	
8	T-2-33	"	"	"	21 " "	20 " "	Horse-breeding	Shahmul	45	
9	T-2-92	Roan	E 4 R.A.	Dinapur	5 May "	20 " "	"	Resal Singh	10	
10	19-B	Bay	L.A. R.H.A.	Unballa	9 August "	16 Oct. "	Mule-breeding	Kolloo Singh	13	
11	T- No.-(10)	"	N-3 R.H.A.	Luaknow	8 Nov. "	8 Dec. "	Horse-breeding	Ameer Bukah	15	
12	110-N B	"	"	"	8 " "	8 " "	Mule-breeding	Chutter Singh	30	
13	50-A	"	17th D.CO. Lancers	"	12 " "	8 " "	"	Nowbut Singh	25	
14	82-E	Chestnut	"	"	12 " "	8 " "	"	Mamraj	15	
15	20-G	Grey	"	"	12 " "	8 " "	"	Jodha	10	
16	C-B Star	D K Bay	9th Lancers	Unballa	17 " "	8 " "	Horse-breeding	Amrao Singh	60	
17	31-1)	"	"	"	17 " "	8 " "	"	Tooman Singh	40	
18	64-1)	Grey	"	"	17 " "	8 " "	"	Abdul Suttar Khan	40	
19	47-E	Bay	"	"	17 " "	8 " "	"	Sbibiyul	60	
20	5-L A	"	L-X R.H.A.	"	20 " "	8 " "	"	Idul	30	
21	5-L A	Brown	"	"	20 " "	8 " "	"	Mustakin Khan	15	
22	13-L A	Grey	"	"	20 " "	8 " "	"	Mamraj	70	
23	105-L A	Brown	"	"	20 " "	8 " "	"	"	12	
24	11-L-3	Bay	L-3 R.A.	Meerut	7 " "	8 " "	Mule-breeding	Tooman	40	
25	1-G A	Roan	G-A R.H.A.	"	7 " "	8 " "	"	Abdulla Khan	50	
26	35-R-3	"	R-3rd R.A.	Fyzabad	18 " "	8 " "	"	"	65	
27	48-R-3	"	"	"	18 " "	8 " "	"	Sookhdoo	20	
28	2-G-1	"	G-1st R.A.	Canapore	18 " "	8 " "	"	Tooman	55	

29	46-K		R-3rd R.A.	Morar	27	8			Kooka	30
30	409	Grey	F-A. R.H.A.	Meerut	6 Dec.	28			Dewan	35
31	3040 2559					28		Horse-breeding Mule-breeding	Syud Bahadur Shah Meer Ahmad Shah	25 75
32	T.N. near rump	Bay				28		Horse-breeding	Syud Bahadur Shah	90
33	Blaze, &c.					28				30
34	1694	Grey				28		Mule-breeding	Syud Bahadur Shah	45
35	1699	Brown				28		Horse-breeding	Phool Singh	55
36	136-T N	Bay	L-A. R.H.A.	Umballa	29 Nov.	28			Syud Bahadur Shah	60
37	159-T N				29	28		Mule-breeding		60
38	47		17th D.O. Lancers	Lucknow	12	28		Horse-breeding	Bulloo	45
39	64		L-3rd R.A.	Meerut	7	28				90
40	5835-B	Hus roan	G-A. R.H.A.		7	28		Mule-breeding	Uchpal	25
41	11-M	Bay	N-B. R.H.A.	Lucknow	5	28		Horse-breeding	Sahab Singh	60
42	22-B		9th Lancers	Umballa	17	28			Bahoo	65
43	40-D	D.K chest.			17	28		Mule-breeding	Biungut	35
44	10-E	Grey			17	28			Soolaiman Shah	30
45	3 T N		R-3 R.A.	Morar	11 Dec. 1892	28				
46	T No. 4	Black	M-3 R.A.	Meerut	8 Jan. 1883	28			Nowashes	35
47	76-H8-58	Chestnut	P-4 R.A.	Morar	5 Mar.	28			Sunt Lal	80
48	53 R C near shoulder	Brown	G-4 R.A.	Meerut	7 Nov. 1894	31 Jan. 1885			Mobarick Ali Baig	20
49	18-K. J. D. near shoulder.	Chestnut	L-3 R.A.		7	31		Mule-breeding	Hameer	35
50	2148-B19	Bay	17th D.C.O. Lancers	Lucknow	12	31			Chundi Parshad	55
51	101		L.A. R.H.A.	Umballa	29	31		Horse-breeding	Unour Singh	80
52	174	Brown			29	31			Mans	40
53	A 1901 7	Grey	8th Hussars	Meerut	16 Jan. 1885	31			Nuthoo	120
54	E-24	Bay	E-4 R.A.	Bareilly	16	31		Mule-breeding	Sree Ram	35
55	E-30				16	31		Horse-breeding	Srish	70
56	*26-E70	Brown			16	31			Soonhatra	35
57	E 91 75	Grey			16	31			Ram Singh	115
58	20-T. M. near shoulder	Brown	D-4 R.A.	Agra	8	18 Feb.		Mule-breeding	Abdul Karim Khan	30
59	T near shoulder	Bay			8	18			Sirdar Khan	25
60	J W near shoulder	Black	O.S. R.A.	Lucknow	8	18		Horse-breeding	Toafa	20
61	B 97 80	Bay	Srd Dragoon Guards	Nutra	5 Feb.	18		Mule-breeding	Man Singh	40
62	B 100 59				5	18		Horse-breeding	Jeewun Khan	30
63	B 103 86				5	18		Mule-breeding	Fatteh Yab Khan	50

Farm mare re-
jected and sold.
ditto.
ditto.

APPENDIX X.—Horse-Breeding Operations.—STATEMENT showing Number of Cast Mares Received from Corps and Batteries, and Sold to *bona fide* Breeders, &c.—*continued.*

Number.	Brand Number.	Colour.	From whence Received.		Date of Receipt.	Date of Sale.	Sold for Horse or Mule Breeding.	Name of Purchaser.	Price.	REMARKS.
			Corps and Batteries.	Station.						
Bengal Presidency— <i>continued.</i> North-Western Provinces— <i>continued.</i>										
									Rs.	
64	100 $\frac{C}{27}$	Bay	3rd Dragoon Guards	Muttra	5 Feb. 1885	18 Feb. 1885	Mule-breeding	Ashfaq Hussain	30	
65	201 $\frac{D}{9}$	Dun	" "	" "	5 " "	18 " "	Horse-breeding	Fateh Yab Khan	100	
66	239 $\frac{D}{60}$	Chestnut	" "	" "	5 " "	18 " "	"	Muhammad Ali Khan	50	
67	301 $\frac{E}{36}$	Grey	" "	" "	5 " "	18 " "	Mule-breeding	Loof Ali Khan	20	
68	378 $\frac{F}{47}$	Chestnut	" "	" "	5 " "	18 " "	Horse-breeding	Muhammad Ali Khan	95	
PANJAB.										
69	105	Bay	B.R.A.	Multan	13 April 1884	25 April 1884	"	Mr. Phillips, Inspector of Police.	33	
70	68	Grey	" "	" "	15 Dec. "	20 Dec. "	"	Pirshah Quraishi	6	
71	A-17	"	1st King's Dragoon Guards.	Rawalpindi	28 Oct. "	10 Nov. "	"	Buksh Khan	56	
72	B-26	Bay	" "	" "	28 " "	10 " "	"	Sirdar Tara Singh	22	
73	D-38	Dun	" "	" "	28 " "	10 " "	"	Sadulla Khan Numberdar	21	
74	44	Bay	" "	" "	28 " "	10 " "	"	Bushrat Khan	40	
75	F-23	Chestnut	" "	" "	28 " "	10 " "	"	Sher Singh	43	
76	F-37	"	" "	" "	28 " "	10 " "	"	Jafar	23	
77	F-61	"	" "	" "	28 " "	10 " "	"	Hayat Khan	19	
78	66	Black	K-B. R.H.A.	" "	30 Dec. "	30 Dec. "	"	Kader Bux	31	
79	168	Brown	" "	" "	30 " "	31 " "	"	Babu Wasawa Singh	50	
80	A-11	Grey	6th Dragoon Guards	Sialkote	11 Nov. "	26 Nov. "	"	Hassoo	27	
81	63	Chestnut	" "	" "	8 " "	25 " "	"	Jiwa Shah	30	
82	C-59	Brown	" "	" "	8 " "	25 " "	"	Fazaldin	65	
83	E-83	Bay	" "	" "	8 " "	20 " "	"	Kadardad	45	

84	F-36	"	"	"	8	"	26	"	"	"	"	Karim Khan	56
85	E-40	"	"	"	8	"	28	"	"	"	"	Shamot Khan	53
86	K-22	Chestnut	"	"	10	"	28	"	"	"	"	Gunda Mall	120
87	89	Bay	D-A. R.H.A.	"	25	"	12	Dec.	"	"	"	Mohomed Buksh	72
88	48	"	"	"	25	"	16	"	"	"	"	Bata Singh	41
89	141	"	"	"	25	"	17	"	"	"	"	Gulam Husal	28
90	109	"	P-3 R.A.	Mian Meer	2	Dec.	2	"	"	"	"	Bulaka Singh	40
91	11	"	N-B 3rd Brigade R.A.	"	18	"	24	"	"	"	"	Miran Buksh	30
92	50	"	"	"	18	"	24	"	"	"	"	Shihdyal	43
93	R-21	D-K brown	R.B. 2nd Brigade, R.A.	Jalandhar	9	Jan. 1885	10	Jan. 1885	"	"	"	Kola Singh	26
94	R-39	Grey	"	"	9	"	10	"	"	"	"	Wisakhi Mall	41
95	100	Brown	"	"	9	"	10	"	"	"	"	"	26
													41
BOMBAY PRESIDENCY.													
96	F-80	Bay	D-B.	Kirkee			8	Nov. 1884	Horse-breeding			Furrier Major Slade	140
97	D-56	"	"	"			8	"	"			Mr. Futteh Mahomed	81
98	D-59	"	"	"			8	"	"			Mr. Shaik Mahomed	71
99	50	"	F.B. R.A.	"			22	"	"			Mr. Kooverji Ardassar	50
100	04	Brown	"	"			22	"	"			G. M. Stewart, Esq.	95
101	1	Black	E-1 R.A.	"			16	Dec.	"			Mr. Kooverji Ardassar	28
102	54	Chestnut	T-1 R.A.	"			16	"	"			Mr. W. Thomson	100
103	44	"	"	"			16	"	"			Mr. Futteh Mahomed	65
104	62	Flea-bitten grey	"	"			16	"	"			Mr. Kooverji Ardassar	42
105	9	Black	"	"			16	"	"			Mr. Poocha Barjori	45
106	109	Bay	G-2 R.A.	Belgaum			23	"	"			Mr. Kooverji Ardassar	90
107	71	"	"	"			23	"	"			Mr. Gangadhar Vinayak	47
108	18	Blue roan	"	"			23	"	"			Mr. Kooverji Ardassar	100
109	42	Chestnut	F-2 R.A.	Kirkee			7	March 1885	"			Mr. Hamjan Khan	30
110	Unknown	Brown	E-2 R.A.	Karachi			5	August 1884	"			Unknown	51
111	"	"	C-2 R.A.	Hyderabad			3	March 1885	"			Khan Bahadur Gharam Khan.	30
112	"	"	"	"			3	"	"			Khan Bahadur Gharam Khan.	30
113	"	Bay	E-2 R.A.	Karachi			7	" 1884	"			Mr. Jameson	55
												TOTAL	5,120

Presidency.	Province.	Number of Mares.	Amount.	Average of each Province.	Average of each Presidency.
Bengal	North Western Provinces	68	Rs. a. p. 2,870 --	Rs. a. p. 42 3 3	41 12 7
	Punjab	27	1,100 --	40 11 10	
Bombay	Deccan	14	984 --	70 4 6	69 14 2
	Sind	4	166 --	41 8 --	

J. H. B. Hallen,
General Superintendent Horse-Breeding Operations in India.

APPENDIX XI.

HORSE-BREEDING OPERATIONS.

STATEMENT of REMOUNTS Purchased during the Year 1884-85.

PRESIDENCY.	REMOUNTS PURCHASED BY	NUMBER OF REMOUNTS PURCHASED.				DETAIL.					
		Horses.	Mares.	Geldings.	TOTAL.	Produce of Government Stallions.	Class of Sires not known.	Country Bred.	Cabuli.	Arab.	Binchi.
Bengal	Army Remount Department { From 4 to 8 years of age	3	1	1	5	1	4	--	--	--	--
	Army Remount Department { From 1 to 4 " "	35	41	40	125	80	45	--	--	--	--
	Bengal Native Cavalry	250	433	243	926	4	685	287	--	--	--
	Punjab " "	42	122	80	250	32	142	76	--	--	--
	North Western Provinces Police	16	25	12	53	22	31	2	--	--	--
	Punjab Police	5	8	1	12	--	--	7	2	1	2
	TOTAL	349	630	302	1,371	139	857	370	2	1	2
Bombay	Bombay Native Cavalry	37	11	7	55	--	--	55	--	--	--
	Police, Northern Division	59	3	6	68	7	29	32	--	--	--
	" Central "	16	5	--	21	5	15	1	--	--	--
	" Southern "	11	3	1	15	1	6	8	--	--	--
	" in Sindh "	102	25	--	127	4	--	123	--	--	--
	TOTAL	225	47	14	286	17	50	219	--	--	--

J. H. B. Hallen,
General Superintendent Horse-Breeding Operations in India.

BENGAL AND BOMBAY PRESIDENCIES, 1884-85. 31

APPENDIX XII.

HORSE-BREEDING OPERATIONS.

STATEMENT showing the Number of COLTS, the Property of Zamindars, Castrated by District Salutris and Castrators in the Horse-Breeding Districts of the BENGAL and BOMBAY PRESIDENCIES, during the Official Year 1884-85.

Presidency.	Province.	District.	Number of Colts Castrated.	Number of Deaths resulting from Effects of Operation.	Number of Male Colts Castrated.		
Bengal	North Western Provinces	Saharanpur	111	-	8		
		Muzaffarnagar	100	-	4		
		Meerut	81	-	8		
		Bulandshahr	84	-	10		
		Aligarh	84	-	2		
		Muttra	3	-	-		
		Agra	9	-	-		
		Etah	7	-	-		
		Shahjahanpur	19	-	1		
		Moradabad	5	-	-		
		Budaun	27	-	7		
		Bareilly	31	-	-		
		Bijnor	3	-	-		
		Gurgaon	5	-	-		
		Belhi	4	-	1		
		Kurnal	6	-	1		
		Umballa	38	-	-		
		Rawalpindi	20	-	7		
		Jhelum	21	-	8		
Bengal	Panjab	Gujrat	19	-	-		
		Lahore	71	-	7		
		Amritsar	8	-	-		
		Ladhiana	8	-	16		
		Ferozepur	20	-	7		
		Sheikhpur	51	-	4		
		Muzaffargarh	36	-	3		
		Dera Ghazi Khan	195	-	2		
		Multan	48	-	16		
		TOTAL in Bengal Presidency			1,049	-	112
		Bombay	Deccan	Poona	16	-	-
Ahmednagar	12			-	-		
Khandesh	10			-	-		
Gujrat	Ahmedabad		32	-	-		
	Sihkarpur		12	-	-		
	TOTAL in Bombay Presidency			83	-	-	

APPENDIX XIII.

MULE-BREEDING OPERATIONS.

CASUALTY ROLL of DONKEY STALLIONS during the Official Year 1884-85.

Number.	Name.	Breed.	Description of Casualty.	Date of Casualty.	Nature of Casualty.
BENGAL PRESIDENCY.					
NORTH WESTERN PROVINCES.					
1	Joshi	Italian	Died	14 May 1884	Rupture of the stomach and diaphragm.
2	Bela	Arab	Destroyed	15 December "	Cystic calculi.
PANJAB.					
3	Azad	Arab	Died	26 May 1884	Fracture.
4	Pulwa	Arab	Died	14 July "	Anthrax.
5	Booga	Arab	Died	27 October "	Fever.
6	Mugra Munh	Panjabi	Died	11 September "	Colic.
7	Bukhtawar Singh	French	Died	15 November "	Inflammation of the lungs,
8	Sahaswan	Arab	Died	26 March 1885	- ditto.
9	Soon Bhodar	Italian	Destroyed	12 May 1884	Incurable paralysis.
10	Khanwarghur	Italian	Destroyed	26 May "	Tumour in the region of the eye.

J. H. B. Hallen,
General Superintendent Horse-Breeding Operations in India.

APPENDIX XIV.

MULE-BREEDING OPERATIONS.

STATEMENT OF DONKEY STALLIONS Sold during the Year 1884-85.

Serial No.	Name.	Class.	Date of Sale.	Name of Purchaser.	Amount.	Remarks as to cause why considered unfit for Government Stud Work.
BENGAL PRESIDENCY :						
1	Suraj Singh - -	French - - -	- July 1884 -	Genga Singh - -	Rs. a. p. 52 - -	Impotent.
2	Lakhowal - -	Panjabi - - -	1 Oct. " -	Attur Singh - -	45 - -	- ditto.
BOMBAY PRESIDENCY :						
3	Jang Bahadur - -	Arab - - -	10 Nov. 1884-	K. B. Framji Ardesor.	60 - -	- ditto.
4	Lancer - -	Arab - - -	8 " " -	Enayat Khan - -	31 4 9	- ditto.

APPENDIX XV.

MULE-BREEDING OPERATIONS.

STATEMENT showing Classification and Distribution of DONKEY STALLIONS attached to the Department of Horse-Breeding Operations in the BENGAL and BOMBAY PRESIDENCIES, during the Official Year 1884-85.

CLASSES.	BENGAL PRESIDENCY.												BOMBAY PRESIDENCY.										
	North Western Provinces.					Rajputana.				Panjab.			Deccan.			Sind and Cutch.							
	Very good.	Good.	Fair.	Indifferent.	Bad.	Total.	Very good.	Good.	Fair.	Total.	Very good.	Good.	Fair.	Total.	Very good.	Good.	Fair.	Total.					
Spanish (Catalan) -	1	3	1	-	-	5	-	-	-	-	9	1	-	10	-	1	-	1	-	-	-		
Arab - - -	1	11	22	-	-	34	-	-	-	8	44	19	-	71	-	1	1	-	1	1	2		
Italian - - -	2	21	13	2	2	43	-	1	-	1	14	24	9	2	49	1	-	1	2	3	-	3	
French - - -	1	5	3	1	-	10	-	-	-	-	4	1	-	5	-	-	-	-	-	-	-	-	
Persian - - -	3	6	7	-	-	16	-	-	-	-	1	13	7	-	21	-	-	-	-	-	3	-	3
Home-bred - -	1	5	2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bokhara - - -	-	-	-	-	-	-	-	-	-	-	10	2	-	12	-	-	-	-	-	1	-	-	1
Panjabi - - -	-	-	-	-	-	-	-	-	-	-	7	14	3	-	24	-	-	-	-	-	-	-	-
Hirati - - -	-	-	-	-	-	-	-	-	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-
TOTAL - - -	9	54	48	3	2	116	-	1	-	1	80	120	42	2	194	1	1	2	4	4	4	1	9
GRAND TOTAL -	311												13										

J. H. B. Hallen,
General Superintendent Horse-Breeding Operations in India.

APPENDIX XVI.

MULE-BREEDING OPERATIONS.

STATEMENT showing Cost of FEED, KEEP, ATTENDANTS, &c., &c., of DONKEY STALLIONS in the BENGAL and BOMBAY PRESIDENCIES, during the Official Year 1884-85.

PRESIDENCY, PROVINCE, AND DISTRICT.	Number of Donkey Stallions, or Days.	Total Annual Cost.	Average per Donkey Stallion per Annum.	General Average in each Province.	Remarks.
BENGAL PRESIDENCY.					
NORTH WESTERN PROVINCES.					
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	
Babugarh Depôt - - - - -	18,207	2,605 6 4	72 - -	- - -	
Meerut - - - - -	3,056	1,126 6 6	134 8 6	- - -	
Bulandshahr - - - - -	1,064	684 6 7	127 3 1	- - -	
Sahasranpur - - - - -	3,123	1,134 6 -	131 6 6	- - -	
Muzaffarnagar - - - - -	2,891	978 14 9	123 9 5	- - -	
Aligarh - - - - -	1,459	532 10 11	133 4 2	- - -	
Muttra - - - - -	209	75 11 6	132 3 9	- - -	
Agra - - - - -	365	133 1 3	133 1 3	- - -	
Etah - - - - -	992	324 6 11	119 5 11	- - -	
Shahjshampur - - - - -	365	128 7 9	128 7 9	- - -	
Budaun - - - - -	1,516	532 11 9	128 4 2	- - -	
Bareilly - - - - -	578	207 15 -	131 4 11	- - -	
Moradabad - - - - -	1,825	632 15 3	136 9 5	- - -	
Ejnor - - - - -	709	238 9 4	122 13 2	- - -	
Allahabad - - - - -	365	131 9 10	131 9 10	- - -	
Malappuri - - - - -	30	27 3 4	111 9 10	- - -	
Kumaon - - - - -	365	132 7 1	129 7 1	- - -	
Gurgaon - - - - -	730	270 5 -	135 2 6	- - -	
Delhi - - - - -	475	168 1 3	129 2 6	- - -	
Kurrol - - - - -	727	264 5 -	132 11 2	- - -	
Rohtak - - - - -	1,095	408 2 3	136 - 9	- - -	
Hisar - - - - -	20	7 5 8	134 3 5	- - -	
Add charges for gear purchased - - - - -	-	584 2 10	-	-	
TOTAL - - - - -	36,126	11,367 1 1	- - -	114 13 6	
RAJPUTANA.					
Ajmers - - - - -	365	135 - 10	135 - 10	135 - 10	
PANJAB.					
Hazara - - - - -	3,521	1,139 - 2	118 1 2	- - -	
Rawalpindi - - - - -	20,075	6,384 7 8	116 1 3	- - -	
Peshawar - - - - -	2,190	746 - 1	124 5 4	- - -	
Muridan - - - - -	1,095	368 6 8	122 12 7	- - -	
Kohat - - - - -	365	133 1 11	133 1 11	- - -	
Jhelum - - - - -	2,781	651 9 10	111 13 4	- - -	
Gujrat - - - - -	2,086	640 13 4	112 3 1	- - -	
Gujranwala - - - - -	1,095	338 10 2	112 14 1	- - -	
Lahore - - - - -	2,554	783 - 8	111 14 6	- - -	
Lahore Veterinary School - - - - -	883	615 9 10	254 7 6	- - -	
Sialkot - - - - -	1,565	500 15 6	116 13 5	- - -	
Gurdaspur - - - - -	1,617	502 11 6	113 7 7	- - -	
Kangra - - - - -	663	203 2 3	106 16 10	- - -	
Dera Ismail Khan - - - - -	549	137 11 9	81 9 2	- - -	
Banna - - - - -	1,095	413 14 5	137 15 6	- - -	
Hoshiarpur - - - - -	830	243 10 9	108 7 5	- - -	
Ferozpur - - - - -	1,882	600 4 11	116 6 9	- - -	
Muzaffargarh - - - - -	4,380	1,425 13 3	118 13 1	- - -	
Jullunder - - - - -	1,095	419 13 1	139 15 -	- - -	
Ludhiana - - - - -	1,095	353 5 11	117 13 8	- - -	
Amritsar - - - - -	1,506	491 14 1	119 3 4	- - -	
Jhang - - - - -	1,188	405 - 6	124 7 1	- - -	
Shahpur - - - - -	2,190	759 2 4	126 8 5	- - -	
Montgomery - - - - -	1,825	593 7 7	118 11 1	- - -	
Mulban - - - - -	2,920	1,032 11 3	126 3 5	- - -	
Dera Ghasi Khan - - - - -	2,256	1,195 1 6	147 11 -	- - -	
Babugarh Depôt - - - - -	2,005	544 4 5	99 1 4	- - -	
Add charges for gear purchased - - - - -	-	235 - -	-	-	
TOTAL - - - - -	66,026	22,060 12 4	- - -	120 7 -	

APPENDIX XVI.

MULE-BREEDING OPERATIONS.

STATEMENT showing Cost of FEED, KEEP, ATTENDANTS, &c., &c., of DONKEY STALLIONS in the BENGAL and BOMBAY PRESIDENCIES, during the Official Year 1884-85—(concluded).

PRESIDENCY, PROVINCE, AND DISTRICT.	Number of Donkey Stallions, or Days.	Total Annual Cost.	Average per Donkey Stallion per Annum.	General Average in each Province.	Remarks.
BOMBAY PRESIDENCY.					
DECCAN.					
Sirur - - - - -	895	Rs. a. p. 619 6 7	Rs. a. p. 252 9 8	—	
Ahmednagar - - - - -	589	406 13 6	252 1 3	—	
Khandesh - - - - -	730	484 2 2	242 1 1	—	
TOTAL - - -	2,214	1,510 5 3	- - -	248 15 10	
SINDH AND CATCH.					
Ehuj - - - - -	365	174 4 8	174 4 8	—	
Umarkot - - - - -	305	53 5 8	53 5 8	—	
Hyderabad - - - - -	494	545 11 2	408 3 1	—	
Shikarpur - - - - -	896	544 12 9	221 14 10	—	
Jacobabad - - - - -	365	272 6 10	272 6 10	—	
TOTAL - - -	2,485	1,690 9 1	- - -	233 9 11	

A B S T R A C T.

PRESIDENCY.	PROVINCE.	Average in each Province.	Average in each Presidency.
Bengal - - - - -	North Western Provinces - - - - -	Rs. a. p. 114 13 6	} 119 7 11
	Rajputana - - - - -	135 - 10	
	Panjab - - - - -	120 7 -	
Bombay - - - - -	Deccan - - - - -	248 15 10	} 240 13 10
	Sindh and Cutch - - - - -	233 9 11	

J. H. B. Hallen,
General Superintendent Horse-breeding Operations in India.

APPENDIX XVII.

MULE-BREEDING OPERATIONS.

GENERAL STATEMENT showing Results of the Year's Operations during the Official Year 1884-85.

PRESIDENCY.	PROVINCE.	MARES COVERED.				Number of Government Donkey Stallions employed as Stud Work		Average Number of Mares covered during 1884-85 per Stallion employed in that Year.	MULES BY GOVERNMENT DONKEY STALLIONS FOALD DURING THE YEAR.														Grand Total.	Number of Mares covered in 1883-84, the Result of which are known.	Number of Government Donkey Stallions employed in 1883-84, the Result of which are recorded. Coverings, are known.	Percentage of Produce foaled during 1884-85, to Mares covered in 1883-84.	Average Number of Produce foaled during 1884-85 per Stallion employed in 1883-84.				
		For Mule Breeding.		Donkey Mares for Donkey Breeding.		During 1883-84.	During 1884-85.		Colt Mules.							Filly Mules.															
		During 1883-84.	During 1884-85.	During 1883-84.	During 1884-85.				By Spanish.	By Arab.	By Bakhara.	By Italian.	By Panjabi.	By Persian.	By French.	By Hindi.	Total.	By Spanish.	By Arab.	By Bakhara.	By Malian.	By Panjabi.						By Persian.	By French.	By Hindi.	Total.
Bengal	North-Western Provinces	7,793	8,318	21	22	66	66	48.01	-	176		99	-	108	14	-	398	2	300	-	66	-	100	6	-	410	796	2,755	66	28.49	12.06
	Rajputana	31	80	-	-	2	1	30.00	-	-	-	-	-	Not known.				-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Panjab	8,359	8,208	770	871	169	170	54.16	23	495	40	197	118	40	38	18	970	23	490	66	920	180	57	31	28	1,624	2,003	8,339	180	24.01	12.59
	TOTAL	11,168	18,551	800	823	227	240	59.29	24	671	40	280	118	152	47	18	1,368	25	666	66	846	180	137	37	28	1,434	2,700	11,132	225	25.14	12.44
Bombay	Deccan and Khandesh	69	*80	-	-	5.41	5.08	16.90	-	3	-	-	-	-	-	-	3	-	7	-	-	-	-	-	7	10	49	4.35	30.40	2.29	
	Gujrat and Kathiawar	-	-	-	-	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Sindh and Cutch	140	214	-	-	4.16	8.57	33.97	-	1	-	5	-	7	-	-	13	-	1	-	-	-	4	-	-	5	18	70	8.20	22.71	5.62
TOTAL	269	294	-	-	10.17	11.60	25.84	-	4	-	5	-	7	-	-	16	-	8	-	-	-	4	-	-	12	28	119	7.55	23.69	3.70	

* Khandesh returns not received.

J. H. B. Hallen,
General Superintendent Horse-breeding Operations in India.

DEPARTMENT OF HORSE-BREEDING OPERATIONS.

ANNUAL ADMINISTRATION REPORT of the BENGAL and BOMBAY
PRESIDENCIES, for the Official Year 1885-86.

Officers.

THE following officers were employed, in the Department during the year under review :—

Inspecting Veterinary Surgeon J. H. B. Hallen, General Superintendent Horse-breeding Operations in India ;

Veterinary Surgeon J. K. Grainger, Officiating Superintendent Horse-breeding Operations, Bombay Presidency ;

First-class Veterinary Surgeon B. L. Glover, Assistant Superintendent Horse-breeding Operations, North-Western Provinces and Rajputana ;

First-class Veterinary Surgeon F. Garratt, Assistant Superintendent Horse-breeding Operations, Panjab.

Mr. Lamb, Superintendent Horse-breeding Operations, Bombay Presidency, continues on furlough until May 1886.

Mr. Anderson, on becoming posted as Inspecting Veterinary Surgeon of the Bombay Presidency, was succeeded by 1st Class Veterinary Surgeon F. Garratt, Army Veterinary Department, as Assistant Superintendent Horse-breeding Operations, Panjab, on 6th July 1885.

HORSE-BREEDING OPERATIONS.

Stallions. Number
of—

2. At the end of last year the strength of stallions on the books was :—

	Bengal Presidency.	Bombay Presidency.
Thorough-bred English	69	8
Half-bred English and Norfolk Trotters	137	11
Australian	5	1
Arab	75	55
Persian	1	—
Stud-bred	24	—
Turkoman	2	—
TOTAL	318	75

Increase received
during the year.

3. The undermentioned stallions were received during the year :—

Whence received.	Class of Stallions.	Bengal Presidency.	Bombay Presidency.
From England	Thorough-bred English	11	2
	Norfolk Trotters	9	2
By purchase in India	Arab	13	15
From Goons, Central India Horse.	Norfolk Trotter	1	—
	Stud-bred	1	—
From Bengal Presidency	Thorough-bred English	—	1
	Norfolk Trotter	—	1
	Arab	—	2
TOTAL		35	23

4. The English horses provided by the Right Honourable the Secretary of State for India arrived by troop ships in Bombay during the trooping season ; four remained in the Bombay Presidency and were sent to Ahmednagar Depôt for acclimatization, and 20 were forwarded to the depôt at Hapur for ultimate distribution in Bengal and Panjab Provinces. As a lot they have been much approved, with the exception of T. B. E. " Barrister ; " which horse, though showing

showing the quality that might be expected from his pedigree (by Doncaster out of Black Gown) has grown to 16 hands 2 inches, and has become leggy and comparatively shallow in barrel.

5. Thirteen Arabs were purchased in the Bombay and other local markets for the districts of Bengal and Panjab, and 15 more Arabs were bought for distribution in the breeding districts of the Bombay Presidency. All these are reported as of good stamp and likely to become useful stud horses.

6. One Norfolk trotter and one stud-bred were returned from the Central India Agency to the Hapur Depôt, and one T. B. E., one Norfolk trotter, and two Arabs were sent thence for service in Sind and Biluchistan.

7. In Bengal the number of deaths among stallions was 14, as shown in Appendix I. The causes, as shown, in Appendix II., were,—from colic four, fever one, anthrax one, apoplexy one, strangled hernia one, poison two, peritonitis one, accident one, mal de coit one, congestion of lungs one. Clear proof from chemical analysis was afforded of arsenic having caused the death of the two horses recorded as "poisoned." Magisterial inquiry did not bring proof home to the suspected parties, but strong suspicion rested on a person, an enemy of the syces in charge of the two horses that died.

Decrease. Casualties.

In Bombay three horses died from colic and ruptured stomach.

8. In Bengal five horses were destroyed; three from old age, one from incurable barsati of penis, and one for fracture of leg. In Bombay three were destroyed, of which one was from disease of hock-joints, another from dropsy and general debility, and the third from being old and worn-out.

9. The following table shows the percentage of casualties in this and the previous year:—

		1885-86.	1884-85.
Died - - - - -	Bengal - - - - -	4.51	1.27
	Bombay - - - - -	3.37	6.66
Destroyed - - - - -	Bengal - - - - -	1.61	3.83
	Bombay - - - - -	3.37	8.00
General Average - - -	Bengal - - - - -	6.12	5.11
	Bombay - - - - -	6.74	14.66

10. In Appendix III. are noted sales of stallions during the year. Fifteen in Bengal and three in Bombay. It will be observed that fifteen were sold for old age, and the rest from other causes rendering them unfit for stud work.

Sales and transfers.

11. Four stallions were transferred from the Bengal to the Bombay register for service in Sind and Biluchistan, and the consequent decrease and increase have been accordingly noted under the returns of the respective Presidencies.

12. At the close of the year under report, the number of stallions present was as follows:—

Number of stallions present.

	Bengal Presidency.	Bombay Presidency.
Thorough-bred English - - - - -	72	11
Half-bred English and Norfolk Trotter - - - - -	138	13
Australian - - - - -	5	1
Arab - - - - -	78	64
Persian - - - - -	1	—
Stud-bred - - - - -	16	—
Turkoman - - - - -	2	—
TOTAL - - - - -	310	89

13. These

13. These

Classification.

13. These horses have been classified and distributed as noted in Appendix IV. The classification is that recorded by the officiating superintendent, Bombay Presidency, and the assistant superintendents in Bengal. Summarised, it is as follows:—

	Bengal Presidency.	Bombay Presidency.
Very good	74	45
Good	179	29
Fair	50	11
Bad	1	—
Worn-out	6	—
Not seen	—	4
TOTAL	310	89

In Bengal the six worn-out have since been disposed of, and the one reported "bad" by the assistant superintendent, Panjáb, has been transferred to the North-Western Provinces for my inspection, prior to final orders being given regarding the horse. In Bombay the four reported as "not seen" by the officiating superintendent were transferred from Bengal; two have been pronounced very good, and two good.

Distribution.

14. The distribution of stallions in the breeding districts during the last ten years has been as follows:—

Presidency.	Province.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.
Bengal	North-Western Provinces	152	160	184	148	144	148	107	116	125	133
	Rajputana	3	7	7	5	5	6	6	2	—	1
	Panjub	127	136	123	156	165	161	184	190	188	170
	TOTAL	281	303	324	309	314	315	297	306	313	310
Bombay	Deccan	—	—	27	41	40	45	47	41	37	45
	Gujrat and Kathiawar	—	—	17	22	20	24	20	18	18	19
	Sindh and Cutch	—	—	12	12	9	9	13	16	17	17
	Biluchistan	—	—	—	—	—	—	—	4	3	6
	TOTAL	—	—	56	75	69	78	80	79	75	89

* Not included in this Return.

15. The names of the stallion stands in the districts are shown in the maps* of horse and mule-breeding operations in the pocket of the cover of this report. It will be observed that the horse-stands are marked in red and the donkey-stands in green. The number and classes of horse and donkey stallions, and number of branded mares of each district, are given in Appendices V. and VI.

Strength of stallions.

16. The strength of stallions in Bengal is shown as 310, and in Bombay 89; but the number at service was 281 and 71 respectively; those in excess of these numbers were unacclimatized or temporarily unfit.

The sanctioned strength for Bengal is 300. No limit has been as yet assigned to Bombay.

In letter marginally noted I earnestly solicited an increase in strength, in order to meet the growing demands; but in reply the Secretary in the Military Department stated that "the Government of India are not prepared to extend horse-breeding operations until the results show that thereby horses can be provided fit for remounting the British mounted branches. The fixed establishment of 300 stallions for Bengal must not be exceeded; and I am therefore to request that you will submit, for the consideration of the Government of India, a revised demand for stallions required during 1885-86, framed to provide only for casualties in the sanctioned establishment of 300 stallions and no more."

17. This subject is again referred to with the hope that the request for more stallion power may be reconsidered and the additional requirements granted, in order to allow due development of horse breeding on the lines on which the Department

Department of horse-breeding operations were inaugurated; and especially I submit the expediency of not disappointing the owners of branded mares by not granting them the services of a sufficient number of stallions as promised to them.

18. Should the Imperial Government decide not to add to the strength of horse stallions in Northern India, I have to suggest that the local governments of the North-Western Provinces and Panjáb may be moved to enjoin district boards, in those districts where more stallions are wanted, to obtain additional sires, so that horse-breeding interests may be locally encouraged.

19. It has been requested in this office letter, No. 81 M.D., dated 6th February 1886, that stallions be supplied from England this trooping season (1886-87), as follows:— Future supply of stallions.

	Thorough-bred English.	Norfolk Trotters.	TOTAL
For Bengal Presidency	8	12	20
For Bombay Presidency	4	-	4
TOTAL	12	12	24

20. The comparative merits of the different classes of stallions employed have been alluded to in former reports. Summarily, it may be here noted that the best produce for army remount purposes is obtained by the half-bred English under the names of Roadster and Norfolk Trotter. These horses get better limbed and generally more powerful stock than any of the other classes. Comparative merits of stallions.

21. As a rule, the thorough-bred English is found not to produce, out of the country mares, stock with good legs; and there is a marked tendency in the produce to become leggy and shallow in barrel. Again, the stock of the thorough-bred is found, as might be expected, not so hardy as that of the Norfolk Trotter and Roadster sires. Indeed, there is no comparison between the produce of these two classes of stallion; and I am inclined to the belief that if the Norfolk Trotter produce proves in the ranks as good as it promises, that it will be wiser on the part of Government to import more of this class of sire and less of the thorough-bred English.

22. The Arab stallions produce a small-sized but hardy horse out of the country mares. Some of the stock is remarkably good in bone of leg; others are not in this respect good, and this depends doubtless upon the Arab horses of late years obtainable not being so true bred as they used to be. Indeed, the admixture of more or less Persian blood, in order to give increase in stature to the stock, has caused deterioration in joints and bones of limb. The great beauty observable in well-defined and large joints, bones, and sinews of the Arab horse's legs is not so usually noticeable as it was 30 years ago. Occasionally a true-bred Arab is seen in the Bombay stables, and his quality and beauty are at once noticed by the experienced eye, but on account of his being, as a rule, from 13-3 to 14-1 in height, he is looked upon as a pony, and is not accepted by Indian horse-breeders as fit to produce horses of any size and likely to realize a good price in the market. The desire that has of late years been growing among cavalry officers in the Indian Army to obtain larger horses for the ranks, has caused the little but sterling Arab stallion to be at a discount in the eyes of breeders. Again, the order that officers' Arab chargers must not be less than 14-2, and preferably more, has induced Arab and Persian importers to meet the demand by breeding stock of larger size by crossing the Arab horse with the Persian mare. Thus the pure-bred Arab stallion is not so often seen as in former days.

23. A few Australian stallions at service have produced fair stock, and as doubtless the Australian thorough-bred has, at this time, far better limbs than his

his relatives bred in England, it seems advisable to obtain thorough-bred sires thence, in order to test their powers as stock-getters with the country-bred mares of India.

24. The Director of Army Remount Operations for India, in the report submitted by him after his return from Australia, noted having found, in certain districts of Australia, thorough-bred stock, with large bone

Vide Government of India, Military Department, No. 127D., dated 17th January 1885.

of legs, and promising in every respect as sires for Indian horse-breeding. I therefore obtained from the Director a list of stock-owners in Australia likely to import to Calcutta thorough-bred colts of a certain stamp; and with the sanction of the Government of India, in a circular addressed to these gentlemen,

I stated that I would be prepared to purchase a given number of stallions in Calcutta of the stamp described and to be approved by me. Of these circulars 12 were sent, but up to date I have received only one reply, that from W. J. Dangar, Esq., Neotsfield, Singleton, N. S. Wales, who states as follows:—"I shall have much pleasure in doing what I can for you in informing breeders of your requirements. I must, however, say at the outset that there are very few breeders who breed the description of horse you require, and who would care to export them for the money.* We are in quest of the same kind of horse ourselves. The

stallions mostly used are those which have been on the turf. *Rs. 2,500 each. The good ones, fit to breed from, are worth 500 l. to 1,000 l., and those which might be got at your figure would not be the sort you require, nor indeed would it be judicious to breed from them, being mostly on the leg without substance. This is not saying much for our horses, but the fact is, breeding is such a hazard, the good ones are exceptions, and most breeders only breed for the turf.

"Your best plan to get horses at all would be to get them here. No one would send horses to Calcutta to be approved of on inspection by yourself or deputy, especially, as I said before, they can get more here for such stallions as you describe, and which are very hard to obtain. Our new Governor (Lord Carrington), who has just arrived, would not risk getting horses here, and has sent seven or eight from England, but from what I hear there is nothing remarkable about them. We drive horses here with more blood and lighter traps. Please do not take my opinion as general; you may get various opinions on the subject."

25. It therefore appears probable that stock-owners will not run the risk of importing stallions to India, and so it remains for the Government of India to consider whether, in order to induce such importations, it will be advisable to depute a reliable officer to the Australian Colonies with a commission to purchase, say from 10 to 12 thorough-bred entire horses from four to six years of age of the stamp required for stud purposes, and thus show breeders and importers of horse stock of Australia the kind of stud horse that is wanted in India.

26. As regards the classes of stallions in use in this Department, in a correspondence which I will quote below in full, I have recorded my opinion. The object of Government is to breed horses fit for army purposes, indeed, for general useful work; therefore, the stamp of sire found best suited to produce such stock out of the mares of the country should be provided. I believe I have adduced proof that the thorough-bred English horse of the present day is not the sire required for the purpose above indicated. The stallions of this class that have been sent by the Right Honourable the Secretary of State for India during the last 10 years have been, as a rule, in appearance all that could be desired, but their stock are found not well suited for Army work. It therefore seems advisable that no more thorough-bred English stallions be imported. The mares of the country possess ample blood, *i.e.*, powers of endurance, but they are wanting in stature, bulk, and size of limb; so in order to obtain good army horses from them, stallions of power, size, and bone possessing sufficient blood, *i.e.*, hardiness, should be provided.

Cost of keep, &c.

27. The total cost of feeding and attendants, including road expenses consequent upon issuing of horses to districts, also construction and repairs of stallion

stallion-stables in the country, cost of stable gear, &c., will be found in Appendix VII. The general average during the last nine years has been as follows:—

Presidency.	In 1877-78.		In 1878-79.		In 1879-80.		In 1880-81.		In 1881-82.		In 1882-83.		In 1883-84.		In 1884-85.		In 1885-86.	
	Rs.	a. p.																
Bengal -	253	5 2	296	- 3	290	2 4	270	11 11	295	10 11	232	2 2	232	8 9	228	13 3	220	15 5
Bombay -	-	-	442	9 -	358	5 -	301	1 -	272	8 7	285	9 11	319	10 8	339	5 3	317	6 5

An increase in cost to the amount of Rs. 1. 15. 9. per horse in Bengal is shown; and a decrease of Rs. 21. 14. 10. per horse in Bombay is noted. The difference in the rates is attributable to either the market rates of forage being higher or lower, or to a fewer or greater number of transfers. Taking the rates generally, I consider them moderate; I may add that I take every opportunity of enjoining the strictest economy compatible with careful management in all matters connected with the shelter and care of the valuable stallions.

28. With regard to the demand for the services of stallions, Mr. Glover ^{Paucity of stallions.} remarks in his annual report:—"The services of the stallions in this charge have again been well sought after. The 109 stallions engaged in covering work during the year having served an average of 41.91 mares per stallion, and many of them covered up to 50 mares during the year, it may be noticed that the average coverings per stallion is only slightly higher than last year. This, however, is owing to a larger number of stallions being employed in covering work during the year than what were at work last year, and of course had the same number of stallions as last year been employed, the average coverings per stallion for the year under report would be much higher.

"It must, I think, be admitted that the stallions have been well employed during the year, and I may be permitted to doubt the advisability of increasing the number of mares to be covered by each stallion in the year to not less than 50, as laid down in your No. 285 A. N. of 30th November 1885. It should, I think, be remembered that although statistics for the year show, as above stated, an average number of over 41 mares covered per stallion, the average number of leaps per stallion is double that number; as it is the custom for every mare to be served twice, usually morning and evening of the same day, or if a mare is served for the first time in the evening she generally comes next morning for the second leap; the average number of times each stallion covered during the year under report has therefore been over 82, and when it is remembered that fully three-fourths of the mares covered during a year are served during the six months, from February to July, the months of March, April, May, and June being really the covering season, the tax on the stallions during half the year is, I think, anything but light; and if the number of mares per stallion is increased the stallions will certainly, during the hot weather months, be over-worked, a large number of mares will go empty, giving a smaller proportion of foalings to coverings, and many of the foals which will be dropped under such circumstances may prove weak and sickly, as being the produce of our overtaxed stallions.

"I would respectfully suggest that the subject be re-considered, for if the order is carried out, independent of running the risk of such probable results as I have just mentioned, the very fact of raising the number of mares per stallion from 40 to 50 will have a bad effect both with horse-breeders and stallion-keepers of these parts; and particularly so if mares are found to go empty or produce indifferent stock when covered by a Government stallion.

"What was written in the year 1822 by that pioneer of horse-breeding in India, Moorcroft, is equally applicable to the present time; and I doubt if I can better explain myself than by quoting from his report to the Board of Directors, written in the year just mentioned, and in which, at page 47, he writes:—"If the supply of stallions keep not equal pace with the increase of breeding, the check will unbinge the confidence and damp the exertions of the breeders." The usual proportion of foalings to coverings, generally about one-third, is, I consider, quite low enough, and instead of running any risk towards reducing that proportion, everything should be done towards getting better results."

29. On this subject Mr. Garratt states :—" I now beg to point out some of the difficulties which exist in the way of bringing the covering of each stallion up to 50 per annum, as laid down in your No. 239 A. P., dated 30th November 1885. It frequently happens that several mares are brought to a stand, where there is only one horse, on the same day; the individual bringing his mare is unable to remain two, three, or perhaps four days before the services of the stallion will be available for him, or perhaps by such time as stallion is available, mare may be out of season; in either case he takes his mare away, and perhaps does not bring her again to a Government stallion for fear of same result, but avails himself of the services of the first country stallion he happens to meet with. Of course, these cases only refer to the poorer class of zamindar who has but one mare, and does not go regularly in for improving his horse stock. In other cases, owners in certain districts will take a dislike to a stallion because he may have a few white hairs on one of his coronets, or some other such trivial reason, and so will have their mares covered by such-or-such a horse, or not at all; so leaving one horse, and crowding for another, without any fault of the one or superiority of the other, but simple prejudice. Then, again, it frequently happens that mares do not hold the first time of covering, and so require covering twice or even three times in a season. When this is the case it is only counted in the number of mares covered as one. Some stallions in the middle of a season when weather is hot get lazy and are a long time before they can be got to cover, although they may be sure foal-getters, and at the beginning of a season when sent out from the dépôt are as keen as possible. Now, with natives, nothing disgusts them more than a slow coverer; however good a horse he may be, if he does not cover at once they are not satisfied. Of course, this is not intended to apply to the enlightened native, who, in many instances, has a really good eye for a horse, and knows exactly which horse is most suitable to his mare; but it does apply to a very large number of men who bring their mares to the Government stallions, and so cause a great rush on some stallions, while others are left with only half a list full. It is not to be expected that all stallions can be equally good, or equally popular, yet all are expected to cover an equal number, and that number (50) I consider to be the maximum, when, as I have stated, one mare may require to be, and is, covered two or three times in a season."

30. There is much in what has been stated by both assistant superintendents, with reference to stallions' services being called upon chiefly in the months from February to July, especially during March, April, May, and June; these representing the covering season in the North-Western Provinces.

31. Though in the rules regarding the management of stallions it is strictly ordered that—

"A stallion should not be allowed to serve more than twice in one day (either one mare twice, or two mares once each), viz., once in the morning and the other in the evening;

"He is not to cover more than five times during the week;

"He is not to serve more than 50 mares during the year;"

Still, when a crowd of mares do come at the same time, it is questionable whether the rules are duly acted up to or not, for it must be remembered that many of the stands are in out-of-the-way places, and, in some instances, not within ken of the public eye, so it is possible that the rules laid down are, at such times and places, infringed, and thus an overtaxed stallion may, as Mr. Glover points out, not duly fill his mares. Again, if the rule limiting the number of mares to be served in a given time are strictly acted up to, some owners who have brought their mares will not, as noted by Mr. Garratt, wait till the time when the turn for their mares to be served arrives, as they know the mares will not remain in œstrum so long, so they are driven to take them to other inferior stallions within reach, or probably will allow the first stallion pony, irrespective of merits or demerits, to cover their mares so as to get them in foal, and thus not lose a year of breeding.

32. It will be obvious that, as a rule, mares come in œstrum during a limited time of year, and remain in that state for only a few days, and do not always again come in œstrum, or if they do, they may at an uncongenial period with regard to foal dropping.

It must often occur that a stallion with his 50 mares allotted to him cannot cover, according to the necessary rules laid down, all his mares if they come in season within a limited period, i.e., about the same time, which, as is well known, generally happens.

Could it be arranged that the 50 mares allotted to him be in turn in œstrum at the rate of three per week, over a period of five months, the bringing up of the percentage of coverings to 50 per stallion would be an easy matter, but as this is impossible, so is it not practicable to bring the average up to the mark required by Government. The only sound course to pursue is to allow of additional stallions, so as to prevent the chance of overtaxing the powers of the stallions and to afford every hope of mares not remaining empty.

It has been my desire to act up to the orders of Government, and now having tested the results of the carrying out of the instructions, I am obliged to once again urge the expediency of granting more stallion power in the breeding districts.

33. At the end of last official year there were, on the registers, branded mares as follows:—

		Branded mares Number of—
Bengal Presidency - -	North-Western Provinces -	5,657
	Panjab - - - - -	10,750
		16,407
Bombay Presidency - -	Deccan - - - - -	776
	Gujarat and Kathiawar -	1,308
	Sind and Cutch - - -	855
	Biluchistan - - - - -	79
		3,018

34. During the year under report additional mares were branded and registered as follows:—

Bengal Presidency - -	North-Western Provinces and Rajputana - - - -	482
	Panjab - - - - -	922
		1,404
Bombay Presidency - -	Deccan - - - - -	364
	Gujarat and Kathiawar -	810
	Sind and Cutch - - -	375
	Biluchistan - - - - -	60
		1,109

Four hundred and fifteen mares were received in Bengal by transfer from other districts.

35. The following numbers of branded mares have been removed from the registers for the reasons noted below:—

	Bengal.	Bombay.
Died - - - - -	886	28
Sold - - - - -	559	3
Stolen - - - - -	59	—
TOTAL - - - - -	1,504	31

36. On the 31st March 1886 the total number of branded mares on the registers, as shown in Appendix VIII., was as follows :—

Bengal Presidency - -	North - Western Provinces and Rajputana - - - }	5,726	16,722
	Panjab - - - - -	10,996	
Bombay Presidency - -	Deccan - - - - -	1,125	4,096
	Gujarat and Kathiawar - -	1,602	
	Sind and Cutch - - - -	1,230	
	Biluchistan - - - - -	139	

The increase in Bengal has been less than in preceding years, and this is due to instructions issued from this office in a letter addressed to the assistant superintendents, to the effect that the greatest care must be exercised in only allowing the best of mares to be branded, on account of the paucity of stallions and the fact of the Government of India having ruled, in letter alluded to in paragraph 16 above, that no increase in the strength of stallions could be for the present allowed.

37. One thousand one hundred and nine mares were branded for horse and pony breeding in Bombay. The Bombay Government, in Resolution marginally noted, state :—

Revenue Department, No. 5,833, dated 13th August 1886. "Many districts in which few mares have as yet been branded were not visited by Mr. Grainger. In view of the orders passed on the last Administration Report, it is not clear why that officer did not spend more of his time in the Deccan. But Government are aware that the work of the whole Presidency is too heavy for a single superintendent to perform satisfactorily, and it is now under consideration whether authority to brand good mares should not be conferred upon such local officers as are known to be peculiarly fitted for the task of selection." With reference to this subject the Government of India have decided that, "as a temporary measure, civil officers may be empowered to grant certificates to owners of good-looking mares of size and substance to have them mated with Government stallions until the Superintendent of Horse-breeding Operations, Bombay, visits all the breeding districts of the Presidency."

38. It is quite true, as observed by the Bombay Government, that the work allotted to the Superintendent Horse-breeding Operations in that Presidency, is too much for a single officer to duly perform, and as under the present financial pressure it cannot be expected that Government will give any additional strength, I have arranged, with the sanction of the Government of India, and approval of the Bombay Government, to perform the executive duties of the superintendent Bombay Presidency this winter in Sind and Biluchistan, in order that that officer may devote the whole of his time to visiting the districts in the Bombay Presidency, especially the Deccan.

Progress in horse-breeding.

39. In the reports of the executive officers of the Department on the several districts within their respective charges, they have fully entered into the progress or otherwise made in horse and mule breeding.

Mr. Grainger, the Officiating Superintendent Horse-breeding Operations, Bombay Presidency, states :— "I do not consider the Sholapur country well suited for horse-breeding. If the owners of the small pony mares could be advised to try mule-breeding this would soon prove a far more valuable industry." With regard to the Dhárwár district he says :— "The country seems to be well suited for pony and mule breeding, and several pony stallions have already been sent there." The remarks made in Cutch are :— "Altogether, I think, the prospects of horse-breeding operations in Cutch are most promising." Under Ahmedabad district it is noted :— "I do not consider the number of mares brought forward during my tour in the Ahmedabad district at all satisfactory. In all I visited three talukas of the Ahmedabad district, viz., Viramgam, Dholka, and Dhandhuka, travelling about 183 miles, and I may state that it is hardly worth while my making another tour in this district for the next two years."

40. Mr. Glover, the Assistant Superintendent Horse-breeding Operations, North-Western Provinces and Rajputana, has summarised the extent of progress made in horse-breeding as follows:—The districts of Saharanpur, Muzaffarnagar, Meerut, Aligarh, and Bulandshahr as “good;” those of Kurnal, Hissar, Moradabad, Shahjahanpur, Delhi, Umballa, Gurgaon, Budaun, Rohtak, Muttra, and Agra as “fair;” and those of Etah, Bareilly, and Bijnor as “indifferent.”

41. From the report submitted by Mr. Garratt, Assistant Superintendent Horse-breeding Operations, Panjab, it appears that horse-breeding is progressing satisfactorily in the districts of Rawalpindi, Jhelum, Multan, Lahore, Gujrat, Gujranwala, Gurdaspur, Muzaffargarh, Shahpur, Jhang, and Amritsar; but in the districts of Montgomery, Sialkot, Kohat, Bannu, Dera Ismail Khan, and Dera Ghazi Khan, the industry did not show any appreciable improvement.

42. The instructions I issued last year with regard to the raising of the standard of mares, as quoted in paragraph 27 of last year's Annual Administration Report, have been duly attended to, and thus, year by year, the brood stock of the country will become of greater value; indeed, as regards the mares now at brood, the remarks here and there, made in the annual reports of the assistant superintendents afford proof that many of the improved stock are very good, and that generally they can be accepted as fit for stud purposes.

43. Mr. Glover notes:—“As the mares improve, the stock will also be correspondingly affected, and as you are aware that the standard of stamp and suitability for mares receiving the brand has annually, even before the issue of your recent orders, been gradually and judiciously raised, it is but natural that the stock should for the present show annual improvement; though in years of drought or sickness their appearance may be disappointing.”

44. Mr. Garratt states:—“The number of mares branded this year is not so great as it would have been owing to the standard having been raised according to your No. 122 A.P., dated 13th July 1885, and in which you restrict branding to mares by Government stallions or of exceptionally fine stamp.”

45. Indeed, it can be accepted that the stamp of mares kept for breeding purposes in Northern India is annually improving, so that at the present date some may be found exhibited at horse fairs and shows of a class all to be desired.

46. During the last eight years the number of mares covered by Government stallions has been as follows:—

Y E A R.	Bengal Presidency.	Bombay Presidency.
1878-79	4,260	1,825
1879-80	5,145	1,881
1880-81	6,005	2,185
1881-82	7,020	2,408
1882-83	8,357	3,508
1883-84	9,280	1,792
1884-85	9,984	1,884
1885-86	10,540	2,307

The steady increase shown by the above figures affords proof of the sure progress in horse-breeding.

47. The number of stallions employed in Bengal was 281, against 277 last year. The average of mares covered, as shown in Appendix IX., is:—

In North-Western Provinces	41.91
In Panjab	33.62
In the Bombay Presidency	32.16

The increase in coverings is satisfactory. Bombay will doubtless show a better average after the superintendent has visited all the districts. In paragraphs 28 to 32 of this Report, the reason why it cannot be expected to bring the average up to 50 mares per stallion has been fully explained.

48. The general percentage of produce to mares covered in Bengal was 33.04 compared to 33.84 last year; and in Bombay 34.06, against 34.16 shown in last year's Report. Commenting on this subject, Mr. Glover remarks:—“The

number of foals dropped during the year to the 4,242 coverings of 1884-85 has been 1,272, or a proportion somewhat below the usual average of one-third of the number of coverings, of which they are the results. The proportion of foals to the number of stallions employed in producing them shows, however, a slight improvement over last year, being 12.48 foals per stallion, as against 12.22. The proportion of foalings to coverings is not, however, satisfactory; and as in the number of foals produced begins the crucial test of the success or otherwise of our operations, it is, I think, a matter for serious consideration as to whether in the high average of 41.58 coverings per stallion during 1884-85, the stallions had not been overworked, a larger number than usual of their mares consequently going empty. With a view to ascertaining if such has been really the case, I have gone carefully over a list of the stallions employed in covering during 1884-85, showing the number of mares each covered during the year, and the result in foals. I find that of the 102 stallions employed, 36 covered over 40 mares during the year; the foaling results during 1885-86 showing that only seven of the 36 filled a proportion of one-third of the number of mares they covered, 17 of the 36 got in foal under one-fourth, and of the 17 eight filled under one-fifth. These statistics, I think, go to prove that it would be injudicious to increase the number of mares to be covered by each stallion in the year to 50, and I would strongly recommend the matter being re-considered with a view towards increasing the number of stallions, rather than run any risk of overtaxing those we already possess, and the results of which will probably be that a large proportion of the mares covered will go empty, which will of course have the effect of making breeders discontented; they will lose faith in the Government stallions and, as a final result, horse-breeding will receive a serious check."

Annual inspection of brood stock.

49. During the year the assistant superintendents visited as many of their respective districts as time would allow, and were present at the several horse fairs and shows held within the provinces in which they conduct their duties.

It is most unsatisfactory that they cannot duly perform their duties, not having sufficient time to do so; in fact, they cannot possibly duly visit the breeding districts so as to allow owners an early opportunity of bringing newly-purchased mares for inspection and branding, so of course these owners cannot wait for months pending the next visit of the assistant superintendent, and doubtless have their mares covered by some worthless country horse or pony, and horse-breeding interests suffer.

Cast mares sold to bona fide breeders.

50. Adverting to paragraphs 33 and 34 of last year's Report, only a few cast mares of British cavalry and artillery were handed over to this Department for sale to breeders. In Appendix X. their disposal has been shown. In future years no more cast mares will be received.

Number of country bred remounts purchased.

51. The demand for remounts during the year under report was extraordinary, owing to Government having ordered the raising of two additional regiments of native cavalry in Bengal, and an extra squadron in each regiment of Bengal and Panjab cavalry. An opinion prevailed that the number required would not be obtained in the local horse marts and breeding districts; but on being consulted by the authorities, I expressed my belief that the supply would be equal to the demand.

52. The number of country-bred remounts purchased during the official year will be found in Appendix XI. Summarily, the numbers are:—

	Bengal Presidency.	Bombay Presidency.
Army Remount Department - - - - -	117	11
Bengal Native Cavalry - - - - -	2,736	—
Panjab Native Cavalry - - - - -	608	—
Police Department - - - - -	54	175
Bombay Native Cavalry - - - - -	—	1,080
TOTAL - - -	3,410	1,266

But during the purchasing season a total number of not less than 5,500 home-bred remounts will be found to have been purchased in Bengal. The particulars

No. 44 M.D., dated 24th September 1886, particulars have been alluded to in a letter I have addressed to the Government of India, Military Department, which will be found below quoted. Of the number shown in Appendix XI. as purchased, 1,930 were entire, 1,984 mares and fillies, and 762 geldings; of the latter 731 were purchased in Bengal, and only 31 in Bombay—most practically is proof afforded that the castrating of colts is becoming more common; more especially in Bengal, where the services of salubris have been supplied in districts where required. But the fact of 1,984 mares and fillies having been bought, doubtless owing to the pressing demand for remounts, is not satisfactory, as not tending to promote the interests of horse-breeding.

53. It is gratifying that breeders are gradually finding it better not to sell their foals to dealers, but rather to rear and sell them from two to three years of age in the local marts; the returns below to be alluded to prove this fact.

54. I deem it very necessary to record in this report the number of purchases of country-bred remounts during the last 10 years, in order to show what the local remount supply has been. Briefly, it has to be stated that the supply for Native cavalry and police wants has been equal to the demand, even under the extraordinary requirements of the year under report, and as this subject has been fully entered upon in recent letters from my office to the Government of India, I now quote them in their entirety.

Letter No. 44 M.D., dated 24th September 1886.

"In reply to your Department Memorandum No. 1421 S.D., dated 25th August 1886, forwarding Military Letter No. 110, dated India Office, 29th April 1886; from the Right Honourable the Secretary of State for India to His Excellency the Right Honourable the Governor-General of India in Council, I have the honour to submit the following remarks:—

"Para. 2.—In 1876 the Departments of Horse-breeding Operations and Army Remount Operations were inaugurated in lieu of the Stud Department which had originally been established in 1794.

"Para. 3.—The results of the working of the Department of Horse-breeding Operations have been:—

"(a) The improvement of the stamp of horses throughout the breeding districts of India, not only with reference to the supply of army remounts, but also for the use of the public.

"(b) The extension of the horse-breeding industry by the inducements offered to make it an agricultural pursuit, by the Government offering prizes at horse shows, which have been established since 1876 in each breeding district, for the best of stock of different ages, the produce of Government stallions out of mares the property of agriculturists and horse-breeders; which mares have been inspected, approved, and branded by the officers of the Horse-breeding Department.

"Para. 4.—The improvement in the stamp of army remounts was brought to notice by His Excellency the Commander-in-Chief in India in letter marginally noted, and this opinion was, I believe, based upon the reports received from officers commanding corps of Native Cavalry. At the present time I hear it is acknowledged by the military authorities that the Native Cavalry of Bengal and the Panjab were never so well mounted as they now are.

"Para. 5.—The reports of officers commanding British cavalry regiments and batteries to which Indian-bred remounts have been sent during the last four or five years are, I hear, satisfactory; inasmuch as not only are the horses approved for their general appearance, but also for their worth in performing their work, and in keeping in good condition when at work. On these latter subjects the Director of Army Remount Operations will be able to report more definitely.

" Para. 6.—With regard to the development of the horse-breeding industry, the operations have been duly recorded in the Annual Administration Reports of the Department. Summarily, it may be noted that the stallions supplied by the Right Honourable the Secretary of State for India, in compliance with indents submitted by the Right Honourable the Governor-General of India in Council, have been, on an average, about 27 per annum, and have been much approved; indeed, the officers of the horse-breeding department have good reason for expressing their acknowledgment of the excellence of the horses so provided. In addition to these, about 10 more of the best stallions available have been obtained by local purchases in India, and these have been chiefly of Arab blood and a few Australians. These sires are distributed in the breeding districts for the serving of mares, the property of native farmers and others, who adopt horse-breeding as a part of agricultural pursuits.

" Para. 7.—Mares only that have been inspected, approved, branded, and registered by the officers of the Department of Horse-breeding Operations, who are all veterinary surgeons, are allowed the services of the Government stallions. The number of these mares has annually increased, and at the end of last official year (31st March 1886) there were on the Bengal Register 16,722, and on that of Bombay 3,341; but in the latter Presidency the registration of mares has been only adopted since 1881, and portions of several of the breeding districts have not as yet been visited by the Superintendent of Horse-breeding Operations, so that many more mares will doubtless be brought on the Bombay Register.

" Again, a new field for horse-breeding is to be opened out this winter in Biluchistan, where the owners of mares are clamorous for stallions, and probably three or four thousand mares will be found fit for the brand and become eligible for the Government horses.

" Thus, by encouraging horse-breeding as an agricultural pursuit, and not only as a remount supply, doubtless the industry will continue spreading.

" During the last few years of the late stud department, the number of mares kept for brood in the North-Western Provinces and in Southern Districts of the Panjáb was stated to be approximately 15,000, but only 6,777 were found when inspected by the Special Stud Commissioners. It has to be noted that all the 20,063 mares branded and registered under the new *régime*, have been inspected, approved, and branded by the officers of the Department of Horse-breeding Operations, and it is calculated that about two-thirds of them are annually brought to the Government stallions. Returns of casualties among these branded mares are annually submitted, so that the registers are kept corrected, and thus the number remaining is ascertainable.

" Para. 8.—I will now invite attention to the above-mentioned duties and results having been performed and effected by a Department which I have had to explain in the Annual Administration Reports, is undermanned, there being only the following officers in it:

- " General Superintendent Horse-breeding Operations;
- " Superintendent Horse-breeding Operations, Bombay Presidency;
- " Assistant Superintendent Horse-breeding Operations, North-Western Provinces and Rajputana;
- " Assistant Superintendent Horse-breeding Operations, Panjáb;

and the extent of country each of the three last-named officers has to traverse varies from that of France to that of Germany, or even a greater area of country. I have frequently represented to the authorities the impossibility of each breeding district being visited annually by the veterinary surgeons in charge, and that it is unfair towards owners not to allow them the opportunity of having mares branded oftener than, in some instances, every second or third year; moreover, that the development of horse-breeding is marred by this state of affairs, as farmers do not retain mares for the Government stallions when they have to wait so long for them to be inspected and branded; and they put them to worthless sires to beget stock of no value to the State or public, and the country suffers. In this way horse-breeding operations, which the State so earnestly desires to have developed, are not duly fostered. Owing to the paucity of executive officers, I intend myself proceeding to Biluchistan and Sind in the months of January, February, and March 1887, to undertake duties which the executive officers have not time to perform.

" Para. 9.

"Para. 9.—Again, it has been urged in my annual reports that the number of stallions is not sufficient to allow of due development, but no additional strength has been sanctioned. I take this opportunity of once more recording that unless the department is allowed more veterinary surgeons, so that the breeding districts may be visited at least once, if not twice a year, and a more liberal supply of stallions be granted, the horse-breeding industry cannot be developed to the extent desired by the State.

"Proof by the results of the work of the last ten years is given that horses fit for all the mounted branches of the service can be bred in India, and in time every horse required for the army could doubtless be obtained in India; and surely it will be wise policy for the Government to have a home supply of army horses the money for which will be retained in India to benefit the horse-breeders of India, and practically encourage horse-breeding instead of continuing to send money to Australia, Persia, and Arabia for horses imported from those countries.

"Proof has been likewise recorded that under-officered and under-horsed as the department is, the horse-breeding industry of India has not been fostered and developed as the interests of the State and country demand.

"Para. 10.—Attached is a return marked A., showing the number of Indian-bred remounts purchased by the Bengal and Panjáb Native Cavalry since 1876, and of these it may be calculated that at least three-fourths have been the produce of Government stallions. A return of purchases made by the native cavalry of the Bombay army is not given, for, as above noted, horse-breeding operations on the lines adopted in Bengal since 1876 were only introduced in Bombay in 1881, and returns available are not complete.

"Para. 11.—On referring to paragraph 10 of the Annual Report of the Director of Army Remount Operations for India for 1885-86, which for facility of

"In the expectation that a large number of horses suitable for British cavalry and artillery would be forthcoming at horse fairs and shows, orders were issued by the Director for the purchase of 63 at an average of Rs. 550, but only 3 remounts were bought at Rs. 448. 5. 4, and one animal obtained through regimental agency for Rs. 600 was posted direct to a battery of field artillery.

reference I place in juxtaposition, I must remark that if it is intended to represent that only three country-bred horses suitable for British cavalry and artillery, were available at horse fairs and shows during the year under report (1885-86), I would suggest inquiries being instituted as to how many of the 2,020 remounts, four years and older, purchased for native cavalry at the same fairs and shows, as shown on the return attached, marked B., might be considered fit for the British mounted services; and I would at the same time urge that the purchasing officers of the Remount Department should be informed that it is advisable and expedient for Government to purchase every Indian-bred horse fit for the British service, so as to encourage local horse-breeding, and allow of breeders to have the benefit of receiving a higher price if possible than that given for native cavalry remounts. The Assistant Superintendents, Horse-breeding Operations, have frequently brought to my notice that horses fit for British cavalry have been available at fairs and shows, and not been purchased by army remount officers, or that no remount officer was present to buy. I can confirm these statements.

"In support of local horse-breeding interests, I can but state that the action on the part of the Remount Department, in not buying more country-bred remounts, is not fair towards the breeders and dealers, who have been led to believe that such purchases, and at higher prices than those paid for native cavalry horses, would be made. Doubtless Australian horses are available in any number in the Calcutta and Madras markets, but the local horse-breeding industry of India should be fostered and encouraged in a more evident manner than obtains.

"Again, the permission to buy young stock, from 18 months, now granted to the Remount Department, probably leads to the officers of that department preferring such stock to bring up in the rearing depôt, as I observe that 91 under three years of age were bought during the year; still I aver that every older horse, fit for British cavalry and artillery, should be purchased, with the view of inducing the breeders to rear their own stock, and thus in time prevent the Government having to be horse rearers. Neither horse-breeding nor horse rearing is the function of Government, and should not be encouraged.

"In the Government of India advertisement, annually published in the leading newspapers, it has been noted, the last year or two, that 100 country-bred horses would be purchased during the year by British remount officers; and thus the breeders are led to believe they will be able to sell only 100 to the remount officers for British cavalry and artillery.

"Para. 12.—In former correspondence, which I believe has been forwarded for the consideration of the Right Honourable the Secretary of State for India, but for facility of reference I attach, marked C. and D., on the subject of encouraging horse-breeders to become rearers, I therein noted and referred to the fact that breeders were inclining not to sell to dealers their very young stock, but to rear it themselves. By returns submitted of the number of breeders selling their stock as remounts, compared to the number of dealers, during last year's horse fairs and shows, confirmation of the facts expressed by me has been received; inasmuch as the proportion of sellers of stock being 1,334 breeders compared to 533 dealers (*vide* Statement attached marked E).

"Para. 13.—It has to be noted that during last purchasing season, owing to the raising of two regiments of Native cavalry in Bengal, and an extra squadron for every regiment of Bengal and Panjáb, cavalry, in all, 23 regiments, not including the cavalry of the Corps of Guides, the demand on the Indian horse market was much greater than usual; but the supply was found sufficient even under this heavy strain; and in the aggregate not less than 5,500 home-bred remounts will be found to have been purchased; and I am aware that had another thousand been required, they would have been forthcoming. This satisfactory result could not have been effected in former times. Some of the Bombay cavalry remount officers also purchased in Bengal and the Panjáb during the same months, and their purchases have not been included in the above calculation. In the return marked B. attached, the purchases shown are those effected only to the end of the last official year, *viz.*, 31st March 1886.

"The stamp of remounts now obtained in the local horse markets, as above shown, is acknowledged to be superior; and as regards cost, referring to para. 2 of letter No. 3097 B., dated 21st July 1886, from the Adjutant General in India to the Secretary to Government of India, Military Department, the average price of 592 remounts therein alluded to was Rs. 239. 6. 1., which amount must be considered moderate for an improved remount, and accepted as such. Indeed, in no other British possessions could good troop horses be bought at the price.

"Para. 14.—I may add, I am informed that some of the country-bred remounts issued by the Army Remount Department have been allotted as officers' chargers; but regarding these and other horses issued from the remount depot to British cavalry and artillery, the Director of Army Remount Operations will doubtless be able to submit a report.

"Para 15.—It may be mentioned that both European and Native horse-dealers are known to give now as good prices for the improved country-bred stock as those realised by the majority of Australian horses in the Calcutta and Madras markets.

"Para. 16.—Before closing this report, I must acknowledge, with gratitude, the very cordial co-operation and assistance the civil officers in the horse-breeding districts in Northern India render the officers of the Department of Horse-breeding Operations in carrying on their duties. Without this hearty aid, the results above described could not have been attained."

LETTER No. 51 M.D., dated 20th October 1886.

"In continuation of this office letter, No. 44 M.D., dated 24th September 1886, I have the honour to state that, after due consideration, I deem it my duty towards the Government of India to declare, with reference to paragraphs 11 and 12 of above-quoted letter, that if the Remount Department is permitted to continue purchasing young stock under three years of age, and the breeders, who having placed reliance on the promise made by Government to purchase older stock for British cavalry and artillery at higher prices than that given by Native cavalry, find that the Remount Department officers do not buy from them older stock, as has been unfortunately proved by only three having been purchased

purchased last year, they will certainly become disappointed and disgusted, and many will no longer attempt to become horse-rearers, but will sell their foals rather than run the risk of horse rearing, to obtain only Native cavalry prices for older stock.

"Para. 2.—Surely it is obvious that the policy of purchasing the young stock is suicidal on the part of Government, and equally impolitic is it not to have the superior older stock now reared by breeders, bought for British cavalry and artillery, and thus practically foster and encourage horse rearing.

"Para. 3.—In my letter above alluded to, I have affirmed that many head of older stock, *i.e.*, above three years of age, suitable for British cavalry and artillery, could have been purchased at last year's horse fairs and shows; and it is to me so important and expedient that such suicidal action should not recur, I earnestly suggest, if the Remount Department officers are not equal to their purchasing duties, the Government may direct other measures to be adopted by which the lamentable failing in last year's purchasing may not be repeated.

"Para. 4.—By your department letter, marginally noted, I observe that the Government of India has sanctioned either an officer of the Remount Department, or the veterinary surgeon of the purchasing committee, or a British cavalry officer being associated with the purchasing committees at horse fairs and shows, in order that any horses brought before the committees for sale, and considered fit for British cavalry or artillery, may be purchased and sent to the remount dépôt; and I would express a hope that the officer appointed for the duty may be one selected as zealously inclined to obtain every country-bred remount found suitable for British cavalry or artillery, and not biassed in favour of colonial stock."

55. Referring to paragraphs 36 and 37 of last year's Report, I have to express regret that purchasing officers have not obtained or duly recorded the pedigrees of remounts secured by them. In Appendix XI. it will be observed that of the 3,410 remounts bought in Bengal, 2,454 are shown in the column "Class of Sire not known." I once more urge that purchasing officers may be enjoined to insist on having the pedigree of each colt and filly, by a Government sire, bought, supplied, and recorded. Pedigrees are given by this department to the owner of every head of stock by a Government sire, and so can be nearly always obtained, if only duly demanded.

Pedigrees of Remounts.

56. During the year under report, by order of the Government of India, committees for the purchasing of native cavalry remounts have been convened to attend at all horse fairs and shows, and to itinerate through the best breeding districts. This measure was deemed necessary in order to prevent the continuance of competition, which always existed between purchasing agents of different regiments when attending the fairs and shows or when buying in the districts. The result has been satisfactory, inasmuch as competition was stopped as far as the different regiments were concerned, and remounts were obtained at a fair price. Moreover, many indifferent horses were refused when the competition ceased.

Native Cavalry purchasing Committee.

57. At first sight it might have been feared that horse-breeding interests would suffer by the above arrangement, but I did not think this likely, as outside the army, horse-breeders and dealers generally have purchasers ready to give the value of a horse; and so, doubtless, horses superior to the run of native cavalry remounts were disposed of in this manner. I had hoped that the Army Remount Department, purchasing for British cavalry and artillery, would have competed for the superior classes of stock, *i.e.*, horses worth more than the prices given for Native cavalry remounts; but as shown under paragraph 54 of this report, purchasing agents of the Army Remount Department bought only three during the year.

58. One subject, in connection with the organisation of these committee proceedings, was not borne in mind, *viz.*, that in order to induce breeders and dealers to bring horses of a superior description before the committee, so as to allow them to be sold at a higher price than that given for Native cavalry horses, say Rs. 250, no purchasing agent for British cavalry and artillery was associated with the committees; hence breeders and dealers had cause for

feelings

feelings of distrust, with reference to the promise made by Government to give prices up to Rs. 550 for British cavalry and artillery remounts; and as the Remount Department purchased only three mature horses during the year, they had grounds for entertaining such feelings of distrust. By a recent ruling of the Government of India, his Excellency the Commander in Chief has been requested to appoint an officer on the purchasing committees to buy any horses suitable for British cavalry and artillery.

Military Department Letter, No. 1676 S.D., dated 6th September 1886, to the Adjutant General in India.

Improvement of horse stock.

59. By the reports of remount officers and the assistant superintendents of this department, it is generally acknowledged that the stamp of horses throughout the breeding districts of Bengal is surely improving; indeed, it is believed that the Bengal and Panjáb Native cavalry are now mounted on superior horses. I have now had a lengthened experience as regards the mounting of the native cavalry, and feel assured that at least one-third of the horses found in the ranks of the Bengal and Panjáb armies are quite fit to carry British light cavalry, and many able for medium cavalry. When recently looking at about 20 remounts purchased by the Native cavalry committee at a fair, an officer who was formerly in a hussar regiment was present and remarked that about 12 of the 20 would do for hussar work. That the officers of Native cavalry are generally of the opinion that their regiments are now better mounted than ever they were is an acknowledged fact.

60. As I am writing, a copy of the Amritsar Horse Show Report, submitted by the Veterinary Surgeon to the Panjáb Government, has been received in my office. I quote the following extract:—

“The dealers bought a great many very nice horses, of a class well suited for chargers in any regiment. In my opinion there were 17 animals in the fair, between the ages of two and four years, suitable for British cavalry and artillery; three of which for artillery purposes were fit to go into the ranks at once. I think it is a great pity that the Remount Department should not be represented at a fair like this. The stamp of animal I am speaking of is far beyond the price of Bengal cavalry, and even at their price is not an animal that would suit them. So far as I can make out, not one of the animals I mention were sold. This is not the way to encourage horse-breeding, while Government loses the services of a lot of valuable animals, and the owner has them thrown on his hands and is naturally disgusted.”

This is strong language, but I believe not too strong. I do hope that the Imperial Government will order measures whereby this lamentable want of action on the part of the Remount Department may not continue.

Reserves of young remount stock.

61. I am aware that it is the desire of the Remount Department to establish “horse runs” for the rearing of young stock. My views on this subject have been fully explained in Appendix C. of this Report, and I again repeat that if Government interfere with horse rearing, by establishing horse runs for young stock purchased from breeders, the same grave error will be committed as was done in the old stud days, when Government purchased young stock and prevented breeders from learning how to rear horses. Surely the experience gained during 80 years of mismanagement should be sufficient to prevent a repetition of the blunder. But should the authorities desire to have a reserve of young horses, I strongly urge that such reserve may be limited to a number equal to one or two years’ supply at the most, and to prevent mistakes being made in purchasing too young and totally unformed stock, only colts and fillies of not less than two years of age be bought. At that age a fair judgment may be formed of the promise given, by the make and shape of each head, but at a younger age, unless the stock has been forced, which is not done in India, the most practical breeder cannot, and certainly amateurs have no chance of forming any sound opinion of the stock.

Metropolitan Horse Fairs and District Horse Shows of 1885-86.

62. I have already submitted a full report of the Metropolitan Horse Fairs and District Horse Shows held during the year, and beg it may be attached as usual to this Report.

The

The amounts below specified were granted in prizes by the Imperial Government—

NORTH-WESTERN PROVINCES :		Rs.
Aligarh Horse Show - - - - -		975
Batesar Horse Fair - - - - -		600
Bulandshahr Horse Show - - - - -		1,250
Hardwar Horse Fair - - - - -		600
Meerut (Nauchandi) Horse Show - - - - -		1,500
Saharanpur Horse Show - - - - -		1,000
PANJAB:		
Amritsar Horse Show - - - - -		500
Dehra Ghazi Khan Horse Show - - - - -		2,000
Gujrat Horse Show - - - - -		1,200
Jellalabad Horse Show - - - - -		700
Jhang Horse Show - - - - -		750
Lahore Horse Show - - - - -		1,000
Multan Horse Show - - - - -		2,000
Muzaffargarh Horse Show - - - - -		1,000
Rawalpindi Horse Fair - - - - -		2,000
Rohtak Horse Show - - - - -		305
Shahpur Horse Show - - - - -		1,000
RAJPUTANA :		
Pokhur Horse Fair - - - - -		300
Tezaji Mule Fair - - - - -		15
TOTAL - - - - - Rs.		18,695
For the best runs kept up by zamindars - - - - -		500
GRAND TOTAL - - - - - Rs.		19,195

The numbers and quality of the stock exhibited at the several fairs and shows have been duly entered upon in the report above alluded to.

63. In the Bombay Presidency prizes at the undermentioned horse shows were awarded as follows:—

	Rs.	a.	p.
Ahmedabad - - - - -	2,830	-	-
Ahmednagar - - - - -	1,006	-	-
Poona - - - - -	3,965	-	-
Rajkot - - - - -	583	-	-
Rudra Mata - - - - -	605	8	8
Shikarpur - - - - -	4,043	-	-
Sibi - - - - -	1,785	-	-
TOTAL - - - - - Rs.	14,817	8	8
Add other expenses incurred - - - - -	8,898	1	1
GRAND TOTAL - - - - - Rs.	23,715	9	9

Of the latter amount, the sum of Rs. 6,383 was granted by the Bombay Government, and the balance contributed by local funds and subscriptions.

64. I have to add that I attended the Poona Horse Show of 1885. The report on the show has not been received in this office, but I wish to record my opinion that, although many of the brood mares exhibited were of a good class showing quality, most of them were light in bone, due to being the produce of thorough-bred English and Arab sires; consequently their produce, also by sires of the above breeds, was likewise light in limb. It is very evident that stallions of the well-bred Norfolk Trotter stamp are required in the Deccan, and unless these stallions are obtained and their services utilized with the mares kept for brood, good legged stock will not be produced.

Ahmedabad Horse Show.

65. I also took the opportunity of attending the Ahmedabad Horse Show in March 1886. The brood mares and stock generally were small and light in limb. Twenty-five years ago, when Superintendent of the Stud Department in Bombay, I allotted thorough-bred English and Arab stallions to the Gujrat and Kathiawar districts; believing at the time that they would prove most suitable for improving the stock of the districts. The same classes of sires have been continued up to date, and the results are:—Produce very light in legs and up to little or no weight; certainly not fit for British cavalry or artillery, although some are suited for native cavalry.

66. In beauty of head and general neat conformation they are remarkable, but as a rule they are wanting in barrel. These facts are similar to those evidenced in Northern India, by using thorough-bred English and Arab sires. Indeed, a general utility horse cannot be obtained from the mares either in Bombay or Northern India, by having them mated to such sires; therefore it is expedient that the Norfolk Trotter stallion should be freely introduced in the Bombay Presidency, but as the mares are generally smaller, both in height and bulk than those found in Northern India, a smaller class of Norfolk Trotter stallion should, for some years, be provided for them; and after the filly produced from these horses has become larger, then a more bulky stallion should be furnished.

67. Bombay cavalry officers and sportsmen are, as a rule, fond of the small and well-bred though light-limbed horse on account of their having been accustomed to Arab and Persian stock; and so, in breeding they have a tendency to prefer stallions and mares of a similar stamp; but it must be remembered that it is the desire to breed a larger and more generally useful stamp of horse with the object of obtaining remounts fit for British cavalry and artillery, as well as for native cavalry; and this fact should be borne in mind by breeders in that Presidency, so that the money now sent to Australia for British cavalry and artillery remounts may be spent in India in purchasing horses of greater height and general size than are now obtainable in the Bombay districts.

68. The acknowledged fact that the thorough-bred English horse when mated to light-limbed country mares will produce as a rule only spindle-shanked and light barrelled stock should not be lost sight of. Again, it is so difficult now-a-days to secure any number of really pure bred and well-boned Arab stallions, that the stock of those Arab stallions now obtained are deficient in bone and always wanting in size.

69. Amateur breeders have, as a rule, one great failing, viz., using brood stock of a stamp more fitted for racing than for any other purpose. The aim for district breeding should be to produce horses that will prove generally useful for saddle and harness purposes, and not only for racing work.

Castration of Colts.

70. The number of colts castrated by Government salutaris during the year under report is shown in Appendix XII.; and the number operated on during the last ten years has been:

	Bengal Presidency.	Bombay Presidency.
In 1876-77 - - - - -	38	—
" 1877-78 - - - - -	122	—
" 1878-79 - - - - -	255	—
" 1879-80 - - - - -	425	—
" 1880-81 - - - - -	551	—
" 1881-82 - - - - -	782	11
" 1882-83 - - - - -	813	71
" 1883-84 - - - - -	950	129
" 1884-85 - - - - -	1,161	82
" 1885-86 - - - - -	1,138	122

These numbers include operations on mules as well as horses.

71. Adverting to this subject, the Assistant Superintendent, North-Western Provinces, remarks:—"Castration work during the year has been progressing fairly

fairly well. The difficulty in obtaining expert and energetic salutris for castration work tends considerably to retard progress. In accordance with the orders contained in your No. 354 A. N., of 3rd February, four men are at present being instructed at the depôt, with a view to their eventually becoming castrators. I hope the experiment will prove successful, and that before many months these men will be available for castration work."

72. The Assistant Superintendent, Punjáb, notes :—" 498 colts and 35 mule colts have been castrated, against 492 and 70 last year, a falling off in the number of mule colts castrated. A great improvement in this respect may be expected next year, as more salutris have been allowed to districts."

MULE-BREEDING OPERATIONS.

73. On the 31st March 1885, there were the following numbers and breeds of donkey stallions :—

	Bengal Presidency.	Bombay residency.
Spanish	15	1
Arab	108	3
Bokhara	12	1
Panjábi	24	—
Italian	93	5
French	14	—
Persian	37	3
Horati	2	—
Home-bred	8	—
TOTAL	311	13

74. During the year under report the following donkey stallions were obtained :—

		Bengal Presidency.	Bombay Presidency.
By importation	Italian	14	—
	Cyprus	10	—
	Khorasani	1	—
Purchased in India	Panjábi	1	—
	Italian	—	3
Received from Bengal Presidency	Persian	—	6
	Khorasani	—	1
TOTAL		26	10

75. The undermentioned donkey stallions have been removed from the registers for reasons mentioned below :—

		Bengal Presidency.	Bombay Presidency.
Died	Arab	6	—
	Bokhara	1	—
	Panjábi	1	—
	Italian	3	—
Destroyed	Arab	4	—
	Bokhara	1	—
Sold	Arab	2	—
	Home-bred	2	—
	Panjábi	1	—
Transferred to Bombay Presidency	Italian	3	—
	Persian	6	—
	Khorasani	1	—
TOTAL		31	—

The casualties are shown in Appendix XIII., and the sales in Appendix XIV.

56 REPORT ON HORSE-BREEDING OPERATIONS IN THE

Number of donkey stallions present. 76. At the close of the official year under report, the number of donkey stallions present was :—

	Bengal Presidency.	Bombay Presidency.
Spanish	15	1
Arab	94	3
Bokhara	19	1
Punjabí	23	—
Italian	101	3
French	14	—
Cyprus	10	—
Persian	31	9
Herati	2	—
Khorasani	—	1
Home-bred	6	—
TOTAL	306	23

Classifications. 77. The classification of donkey stallions present, as shown in Appendix XV., is as follows :—

	Bengal Presidency.	Bombay Presidency.
Very good	31	6
Good	178	5
Fair	91	3
Indifferent	3	—
Bad	3	—
Not seen	—	9
TOTAL	306	23

There appears to be some mistake in three Italian donkey stallions in the Panjáb having been classified as "bad." Inquiries are being made from the Assistant Superintendent, and the result will be communicated in next annual report.

Comparative merits of donkey stallions. 78. As noted in last year's Report, the stock produced by the different classes of donkey stallions has been found good; more especially the produce of the Italians and Catalans (Spanish). Those obtained from Cyprus have been issued and are now serving in the districts; their produce will be reported on in due course.

79. The demand for the services of donkey sires is on the increase. Mr. Glover, Assistant Superintendent, North-Western Provinces, states :— "The services of donkey stallions have been, I think, fully utilised, and I regret to have to report that owing to a paucity of stallions I have experienced considerable difficulty in meeting the demands of an increasing mule-breeding industry; and, as you are aware, it has been only by issuing some of the recently imported donkeys, untested and unacclimatised though they were, to stands adjacent to the depôt, that the difficulty has, in a measure, been overcome." The demand for donkey stallions steadily increases, and at the present time the supply is not equal to the demand; but it is hoped that some country-bred donkeys by Government sires may be obtained, during the year, so as to meet the increasing demand.

Mr. Sutherland's Memo. regarding the management of donkey stallions. 80. In a memorandum forwarded by the Right Honourable the Secretary of State for India to the Government of India for information, Mr. Sutherland, the well-known breeder and judge of donkey and mule stock in England, and purchaser of Italian and other donkey stallions for India, has recorded some very practical remarks regarding the management, &c., of donkey stallions. In order that these valuable notes may be placed on record, I attach a copy as Appendix XVI., of this Report.

81. The

81. The cost of the feed and keep of, and attendants on, donkey stallions in the districts is shown in Appendix XVII. The general averages of the last seven years have been as follows:—

Cost of feed and keep of donkey stallions.

	Bengal Presidency.	Bombay Presidency.
	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
In 1879-80 - - - - -	181 1 5	Not furnished.
" 1880-81 - - - - -	141 1 4	ditto.
" 1881-82 - - - - -	105 9 2	ditto.
" 1882-83 - - - - -	107 11 1	233 9 4
" 1883-84 - - - - -	116 9 5	194 4 8
" 1884-85 - - - - -	119 7 11	240 19 10
" 1885-86 - - - - -	122 12 1	202 15 6

The increase shown in Bengal is due to the Panjáb rates having been higher. The average in the Panjáb being *Rs. 127. 3. 11*; in North-Western Provinces *Rs. 114. 8. 10*; and in Rajputana *Rs. 114. 5. 0*.

With regard to the high rates in the Panjáb, the Assistant Superintendent notes:—

"Due to increase in price of grain in many districts, and shortness of grass in others, necessitating the purchase of green grass."

82. The number of pony mares covered by donkey stallions during the last three years has been:—

Pony mares covered.

	Bengal Presidency.	Bombay Presidency.
In 1882-84 - - - - -	11,159	200
" 1884-85 - - - - -	12,551	294
" 1885-86 - - - - -	16,081	338

Thus there is practical proof of the spreading of mule-breeding as an agricultural industry in Northern India.

It is to be hoped that in Bombay mule-breeding may become more generally adopted. It simply rests with the Superintendent, Horse-breeding Operations, and civil officers to duly advise pony mare owners as to mule-breeding being very remunerative to ensure the industry being followed.

83. But in connection with this subject, I have to point out that in new mule-breeding districts, i.e., in those parts of India where the mule has not hitherto been known, and where there is a bias against putting pony mares to the donkey, it is expedient for Government to foster and encourage the practice by purchasing, for the first few years, young mule stock; so as to allow mare owners to thus obtain pecuniary recompense for having adopted mule-breeding; as in these districts Government is the only purchaser for the present, and it cannot be expected that mare owners will keep mules until four years of age. The young mules purchased, say 10 or 12 months old, might be handed over to the Commissariat Department to be reared on Government farm, such as Karnal. By-and-bye, when the people see that they can obtain greater profit by keeping young mules up to three or four years of age, they will not be slow in retaining them for the higher prices.

This measure will be necessary in new mule-breeding districts for the first four or five years, and doubtless mare owners will be only too glad to learn how to rear their stock up to three or four years of age, as breeders do in the Panjáb, in which province mule-breeding has been adopted for many years.

84. As the weak strength of officers in the Horse-Breeding Department forbids the branding of pony mares, and all pony mares, irrespective of their relative merits, have access to the donkey stallions, so it can be understood that as the allotting of the best pony mares to the best donkeys cannot be undertaken, superior mules are not so often as might be bred; thus mule-breeding interests are not cared for as they should be.

Branding of mule breeding mares.

Donkey mares covered by donkey stallions.

85. A certain number of donkey stallions will not cover pony or horse mares, but will readily serve mares of their own species. These stallions are kept for donkey mares, and their services are available in districts where the best donkey mares are to be found. During the past three-years the number of donkey mares served has been :—

	Bengal Presidency.	Bombay Presidency.
In 1883-84	800	—
" 1884-85	893	—
" 1885-86	761	29

It will be observed that fewer mares have been served in Bengal. Mr. Glover remarks as regards the North-Western Provinces :—“ There still appears to be little inclination among the natives to make use of the Government donkey stallions for donkey breeding. I have had it made thoroughly known that the services of a donkey stallion are available at the Babugarh Depôt for donkey breeding; and at the same time I have taken every opportunity of informing those who breed donkeys that Government would buy and give a good price for any donkey colts which might be likely to make suitable stallions. For some reason, however, donkey mares are not being brought to our stallions in the number which might be expected.” It has to be noted that prizes are offered at horse fairs and shows for good donkey stallions. In the Panjâb donkey-breeding is carried on to some extent, and I have been able to secure a few good Panjâb bred donkey stallions for distribution in mule-breeding districts. I have no doubt that donkey-breeding will gradually spread, as the superior Government donkey stallions offer every inducement to donkey owners to breed superior stock for sale to Government.

Mule stock; number of.

86. The returns received show that during the year under report 3,336 mules were born in Bengal and 30 in the Bombay Presidency, *vide* Appendix XVIII., but it has to be acknowledged that these returns can be but considered meagre and unreliable. I have explained above that owing to the officers of this Department not having time to give to the branding of pony mares kept for mule breeding, no data as to the number so maintained are available; moreover the returns of births are from the same cause scant, and cannot be accepted as of value. But doubtless mule-breeding being found so remunerative causes the industry to be readily adopted by very many pony mare owners.

Duties performed by Officers of the Department.

94. During the year under report, I visited and inspected stock in the districts; also attended horse fairs and shows on the dates noted :—

1885:			
April	2nd to 6th, Lahore	—	Inspection of stallions and site for new stabling.
"	7th to 10th, Hurdwar	—	Attending horse fair.
"	11th to 13th, Amritsar	—	Attending horse show.
"	14th to 20th, Lahore	—	Examination of Veterinary School students.
"	21st to 4th	Simla	Attending Committee, Civil Veterinary Department.
May	5th to 8th, Babugarh	—	Inspection of depôt and stables.
"	9th to 10th, Ajmere	—	—
"	11th to 12th, Neemuch	—	—
"	13th to 15th, Jhalrapatan	—	Inspection and branding of brood mares in Jhallawar.
"	16th to 18th, Kotah and Deoli	—	—
"	19th to 21st, Ajmere	—	—
"	22nd to 26th, Bombay	—	—
"	27th to 30th, Poona	—	—
"	31st to 2nd	Bombay	Purchasing stallions.
June	3rd to 10th, Babugarh	—	Inspection of depôt and stables.
"	11th to 28th	Simla	On-duty with Government of India.
July	29th and 30th, Saharanpur	—	Inspection of remount country-bred stock.

1885—continued.			
July	31st to	Babugarh	Inspection of depôt and stables.
August	2nd		
"	3rd to 5th	Hissar	Inspection of cattle farm.
"	6th to	Simla	On duty with Government of India.
September	28th		
"	29th to	Bombay	Purchasing stallions.
October	5th		
"	6th to 10th	Poona	Attending horse show.
"	11th to 17th	Bombay	Purchasing stallions.
"	18th to	Simla	On duty with Government of India.
November	7th		
"	8th to 11th	Amritsar	Attending horse fair.
"	12th to 16th	Babugarh	Inspection of depôt and stables.
"	16th to 22nd	Pokhur	Attending horse fair.
"	23rd to		Tour of inspection through the Merwara districts in Rajputana.
December	14th		Purchasing stallions.
"	15th to 21st	Bombay	
"	22nd to		Visiting the Hyderabad Assigned Districts in Berar, and prospecting the country for pony and mule breeding.
1886:			
January	5th		
"	6th to 12th	Babugarh	Inspection of depôt and stables.
"	13th to 19th	Jellalabad	Attending horse show.
"	20th to 27th	Babugarh	Inspection of depôt and stables.
"	28th to	Shikarpur (Sind)	Attending horse show.
February	12th		
"	13th to 18th	Sibi (Biluchistan)	- - ditto.
"	19th to 21st	Labore	Attending Visitors' Board at Veterinary School.
"	22nd to 24th	Saharanpur	Attending horse show.
"	25th to	Babugarh	Inspection of depôt and stables.
March	4th		
"	5th to 9th	Ahmedabad	Attending horse show.
"	10th to 14th	Agar (Central India)	- - ditto.
"	15th to 31st		Tour through the districts of Berar.

95. Mr. Lamb, Superintendent, Horse-breeding Operations, Bombay Presidency, remains on furlough, and Mr. J. K. Grainger, continues officiating in the Bombay Presidency. As will be gathered from the latter officer's report, his movements during 1885-86 were as follows:—

1886:		
April	6th to 11th	Hardwar fair in the North-Western Provinces.
August	4th to	
October	6th	On privilege leave.
"	13th to 25th	Rajkot horse show.
November	16th to 18th	Ahmednagar horse show.
"	20th to	Inspection of brood stock in Sholapur district.
December	10th	
"	12th to 16th	Inspection of brood stock in Dharwar district.
1886:		
January	3rd to 21st	Inspection of brood stock in Cutch.
February	1st to 5th	Shikarpur horse show.
"	6th to 20th	Inspections in Shikarpur district.
March	7th to 13th	Ahmedabad horse show.
"	14th to 30th	Inspections in Ahmedabad district.

As noted in paragraph 37 above, the Government of Bombay has remarked upon Mr. Grainger not having spent more of his time in the Deccan. The arrangement made for my performing executive duties in Sind and Biluchistan during the touring season of 1886-87 will allow of Mr. Grainger devoting the whole of his time in the southern districts, especially in those hitherto not visited or only in part visited by him.

96. Mr. B. L. Glover, Assistant Superintendent, Horse-breeding Operations, North-Western Provinces and Rajputana, reports:—"I commenced my cold weather tour on the 8th October, and I was almost continually on the move up to the end of the year, either in marching through or visiting in some other way the breeding districts, or in attending horse fairs and shows. The districts through which I marched were Saharanpur, Muzaffarnagar, Meerut, Buland-

shahr, Aligarh, Agra, Etah, Bareilly, Sháhjahánpur, Moradabad, Budaun, and Rohtak. All the stallion stands in these districts were inspected by me, and the districts of Umballa, Kurnal, Hissar, Gurgaon, and Delhi; though I had not time to march through them, were visited by me in such a way as to afford opportunity to zamíndárs and breeders for having mares branded, and for my inspecting the stallions standing in them. I was altogether, during my tour, 175 days under canvas, and I marched by road a distance of 1,691 miles. Of the 82 stallion stands in my charge I inspected 56; and although I was unable to visit the remaining 26, I made arrangements which permitted my inspecting, at some time or other during the year, the stallions standing at them; and in this way I am able to report that all the horse stallions and all but six of the donkey stallions in my charge were during the year inspected by me. It being impossible for me to march through the whole of my charge during one cold weather, I was compelled to leave many districts out of my marching tour; but during the month of March any districts which I did not pass through while marching were visited by rail, or road dák, and in this way all districts and stands in my charge have therefore had an opportunity of having mares branded."

97. Mr. F. Garratt, Assistant Superintendent, Horse-breeding Operations, Panjáb, states:—"Since taking up my duties as Assistant Superintendent, Horse-breeding Operations, Panjáb, on 5th July 1885, at Babugarh, I have visited and thoroughly inspected the following districts:—Montgomery, Rawalpindi, Jhelum, Multan, Lahore, Gujrat, Gujranwala, Sialkot, and Gurdáspur; and those partly inspected were Kohat, Bannu, Dera Ismail Khan, and Muzaffargarh. The reason of the two latter districts not being thoroughly inspected, as intended, was owing to my being called away while in the Dera Ismail Khan district to visit Phalian in the Gujrat district, where the two thorough-bred English stallions, Ulster King and Abimelech, had died suddenly, the cause of which was ultimately proved to be poisoning by arsenic. In addition to these inspections, I visited all the horse shows and fairs in the Panjáb, 10 in number, viz., Jellalabad, Multan, Muzaffargarh, Dera Ghazi Khan, Jhang, Gujrat, Shahpur, Lahore, Rawalpindi, and Amritsar. I left Babugarh on inspection duty on 1st September 1885, and travelled continuously, except a 10 days' halt at Christmas, until the expiration of the year under report, 31st March 1886, during which time I travelled 2,080 miles by road, 3,675 miles by rail, and made 89 halts."

98. This was Mr. Garratt's first tour, during which he most zealously conducted his duties. In former reports I have made mention of the most satisfactory manner in which Mr. Glover has always performed his onerous duties; indeed, I have much pleasure in recording that my best thanks are due to both these officers for the hearty aid they have given me in carrying on the work of the Department.

Cost of the Department during 1885-86.

99. In accordance with instructions contained in Military Department letter No. 781 D., dated 25th March 1880, the original statement showing the cost (military) of the Department during 1885-86 received from the Comptroller of Military Accounts, and those of the civil charges received from the Comptroller of India Treasuries are attached, aggregating Rs. 2,64,540. 9. 7, as detailed below:—

	<i>Rs. a. p.</i>
A.—Military charges - - - - -	39,746 15 8
B.—Civil charges - - - - -	2,06,501 13 5
C.— Ditto (Supplementary) - - -	18,291 12 6
TOTAL - - - <i>Rs.</i>	2,64,540 9 7

But

But with reference to the entries made in Statements B. and C., I beg to point out that the sums noted below are not chargeable against the grant for the Department of Horse-breeding Operations:—

	<i>Rs. a. p.</i>
Expenses incurred in Central India - -	3,312 2 3
Ditto - - Biluchistan - - -	1,992 3 11
Purchase of a bull - - - - -	150 - -
TOTAL - - <i>Rs.</i>	5,454 6 2

The net expenditure during 1885-86 therefore amounts to *Rs.* 2,59,086. 3. 5. against *Rs.* 2,79,542. 0. 2. in 1884-85, showing a decrease of *Rs.* 20,455. 12. 9. The total cost in the Bombay Presidency is *Rs.* 54,156. 2. 5. against *Rs.* 57,753. 10. 3., showing a decrease of *Rs.* 3,597. 7. 10. The expenditure has been divided into two separate heads, viz.:—

	<i>Rs. a. p.</i>
I.—Cost of supervision and establishment -	11,263 4 -
II.—Purchase and keep of stallions, prizes, &c., awarded at horse shows.	42,892 14 5
TOTAL - - <i>Rs.</i>	54,156 2 5

Of which the sum of *Rs.* 10,278. 8. 9 is debited to local funds; *Rs.* 42,915. 12. 6. to provincial revenues; *Rs.* 830. 3. 4. to the Biluchistan Agency, and *Rs.* 131. 9. 10. to the Palanpur Agency.

100. In concluding this Report I solicit the attention of the Government of India to the following points:— Conclusion and summary.

- I.—In paragraph 18.—That the Local Governments of the North-Western Provinces and Panjáb be moved to enjoin District Boards in those districts where more stallions are wanted to obtain additional sires, so that horse-breeding interests may be locally encouraged.
- II.—Paragraph 25.—Whether it will be advisable to depute a reliable officer to the Australian colonies, with a commission to purchase 10 or 12 thoroughbred Australian horse stallions, from four to six years of age, of the stamp required for stud purposes in India.
- III.—Paragraphs 28 to 32.—Fully explain the expediency of granting more stallion power in the breeding districts, and the reasons why each stallion employed cannot serve 50 mares per annum.
- IV.—Paragraph 55.—Officers purchasing remounts to be enjoined to insist on being supplied at the time of purchase with the pedigree of each colt or filly by a Government stallion that may be bought for remount purposes.
- V.—In paragraph 60.—Extract from Mr. Pringle's report is given, relative to the Remount Department not being represented at the Amritsar fair where there were, in his opinion, about 17 animals between the ages of two and four years, suitable for British cavalry and artillery remounts.
- VI.—Paragraph 61.—If Government interfere with horse rearing, by establishing horse runs for young stock purchased from breeders, the same grave error will be committed as was done in the old stud days, when Government purchased young stock and prevented breeders from learning how to rear horses.
- VII.—Paragraphs 64 to 69.—It is expedient that well-bred and a smaller class of Norfolk trotter stallions should, for some years, be freely introduced to serve mares in the Bombay Presidency.
- VIII.—Paragraph 83.—In new mule-breeding districts, Government should foster and encourage the industry by purchasing, for the first few years, young mule-stock from 10 to 12 months old, and rearing them on Government farms, such as Kurnal.

Meerut,
6 December 1886. }

J. H. B. Hallen, General Superintendent
Horse-breeding Operations in India.

APPENDIX I.

HORSE-BREEDING OPERATIONS.

GENERAL ABSTRACT of Casualties of HORSE STALLIONS in the BENGAL and BOMBAY PRESIDENCIES during the Official Year 1885-86.

Presidency and Provinces.	Died.					Destroyed.					Grand Total.	Average Deaths.	Average of Stallions destroyed.	General Average.	
	Thorough-bred English.	Half-bred English, including Norfolk Trotters.	Arab.	Stud-bred.	Total.	Thorough-bred English.	Half-bred English, including Norfolk Trotters.	Arab.	Stud-bred.	Total.					
BENGAL.															
North-Western Provinces.	3	-	-	1	4	-	1	-	2	3	7	4.51	1.61	6.12	
Panjab	3	6	1	-	10	-	1	1	-	2	12				
Rajputana	-	-	-	-	-	-	-	-	-	-	-				
BOMBAY.															
Deccan	-	-	-	-	-	-	-	1	-	1	1	3.37	0.37	0.74	
Gujrat and Kathiawar	-	-	-	-	-	-	-	2	-	2	2				
Sindh and Kutch	-	1	2	-	3	-	-	-	-	-	3				

APPENDIX II.

HORSE-BREEDING OPERATIONS.

CASUALTY ROLL of HORSE STALLIONS in the BENGAL and BOMBAY PRESIDENCIES during the Official Year 1885-86.

Number.	Brand Number.	English Name.	Native Name.	Caste.	Description of Casualty.	Date of Casualty.	Nature of Casualty.
BENGAL PRESIDENCY.							
1	1785	Receleitnant	Ramgarh	T. B. E.	Died	14 June 1885	Apoplexy from intense heat.
2	1953	Stepney	Sham Lall	"	"	16 " "	Fracture of skull from rearing up and falling backwards.
3	1861	War Office	Faujdar	"	"	19 Oct. "	Fever.
4	1538	Engagement	Pusa	S. B.	"	6 Feb. 1886	Peritonitis.
5	14	"	Bijlee	"	Destroyed	20 July 1885	Old and worn out.
6	1624	Regulator	Baraber	English	"	7 Dec. "	Old age.
7	1496	"	Augur	S. B.	"	1 Mar. 1886	ditto.
8	1718	Phenomenon	Nadir	N. T.	"	7 April 1885	Anthrax.
9	1628	Badminton	Razigarh	H. B. E.	"	11 June "	Mal de coit.
10	2024	Pioneer	Safarmina	N. T.	"	19 "	Colic.
11	"	The North Star	Kutab	"	Destroyed	19 "	Incurable burnati of penis.
12	1836	Bay Hurdle	Jangbahadur	"	Died	23 "	Congestion of lungs.
13	2049	Cavendish-square	Chowraha	T. B. E.	"	3 July "	Colic.
14	1630	Arab Hunter	Shikari	Arab	"	6 " "	Strangulated hernia and peritonitis.
15	"	Norfolk Cob	Kashi	N. T.	"	18 Aug. "	Colic.
16	2027	Transport	Rasad	"	"	23 "	ditto.
17	2886	Abimelech	Delhi	T. B. E.	"	27 Nov. "	Poisoned.
18	2048	Ulster King	Bhooput	"	"	1 Dec. "	ditto.
19	"	"	Surtas	Arab	Destroyed	21 "	Fracture of leg.
BOMBAY PRESIDENCY.							
20	"	Er-Premie	Wazir	N. T.	Died	17 Aug. "	Flatulent colic and rupture of stomach.
21	"	ditto	Shahapur	Arab	"	2 Sept. "	Colic.
22	"	Silver-hill	"	"	"	10 Jan. 1886	Ruptured stomach.
23	"	Curtas	"	"	Destroyed	21 Sept. 1885	Disease of the hock joints.
24	"	Mint Myster	"	"	"	2 Aug. "	Droopy and general debility.
25	"	Pearl	"	"	"	24 Dec. "	Old and worn out.

APPENDIX III.

HORSE-BREEDING OPERATIONS.

STATEMENT of HORSE STALLIONS sold during the Official Year 1885-86.

No.	Brand No.	English Name.	Native Name.	Class.	Date of Sale.	Name of Purchaser.	Amount sold for.	REMARKS.
BENGAL PRESIDENCY.								
1	1884	Venice	Valayat	T. B. E.	6 March 1886	Dr. Clayton	Rs. a. p. 125 - -	Bad.
2	1033	Arthur	Shahmadar	Arab	6 " "	Rabim Bux	55 - -	Old age.
3	1708	Elastic	Sabranpur	S. B.	6 " "	Mr. Saunders	100 - -	Unsound hocks.
4		Grey Warrior	Enayet	Arab	20 October 1885	Captain Thuller, 21st P. N. I.	560 - -	
5		Star of Cashmere	Shahjahanpur	"	20 " "	Dr. Grant, Civil Surgeon	50 - -	
6	1828		Kushkhabar	S. B.	20 " "	Sirdar Kirpal Singh	52 - -	
7	466		Thakur	"	20 " "	C. E. Gladstone, Esq., District Judge.	65 - -	
8		Volcano	Kohlnur	Arab	20 " "	Sirdar Kirpal Singh	300 - -	
9	1684		Mecca	"	16 October 1885	Braclabad Farm	71 - -	
10		The Earle	Wazir	"	16 " "	- ditto	41 - -	Old age.
11		Scottish Chief	Sirdar	"	25 October 1885	Harl Chand	160 - -	
12			Janbas	S. B.	7 November 1885	Nehala	37 - -	
13	1761	Scribbler	Katib	"	7 " "	Sahib Din	101 - -	
14		Empero	Dinapore	"	7 " "	Colonel Palmer, 9th Bengal Cavalry.	50 - -	
15			Zillalla	Arab	17 January 1886	Nawab of Mamdot	175 - -	
BOMBAY PRESIDENCY.								
16		Diraell		"	28 June 1885	Unknown	10 7 8	Impotent.
17		Hermit		"	1 September 1885	ditto	35 - -	Old and worn out.
18		Lottery		"	16 December "	ditto	72 - -	Old and unfit for stud work.

APPENDIX IV.

HORSE-BREEDING OPERATIONS.

STATEMENT showing Classification and Distribution of HORSE STALLIONS attached to the DEPARTMENT of HORSE-BREEDING OPERATIONS in the BENGAL and BOMBAY PRESIDENCIES during the Official Year 1885-86.

CLASS OF STALLIONS.	BENGAL PRESIDENCY.														BOMBAY PRESIDENCY.																
	NORTH-WESTERN PROVINCES.				RAJPUTANA.				PUNJAB.						DECCAN.				GUJRAT AND KATHIWAR.				SINDH AND CUTCH.				BILUCHISTAN.				
	Very good.	Good.	Fair.	Total.	Very good.	Good.	Fair.	Total.	Very good.	Good.	Fair.	Bad.	Worn out.	Total.	Very good.	Good.	Fair.	Total.	Very good.	Good.	Fair.	Total.	Very good.	Good.	Fair.	Total.	Very good.	Good.	Fair.	Not seen.	Total.
Thorough-bred English	0	21	8	38	-	-	-	-	23	10	2	-	-	34	4	-	-	4	3	1	-	4	-	-	-	-	2	-	-	1	3
Half-bred English, including Norfolk Trotters.	25	81	10	66	1	-	-	1	11	57	3	-	-	71	5	-	-	5	1	-	-	1	5	-	-	5	1	2	-	2	
Water	-	1	-	1	-	-	-	-	2	2	-	-	-	4	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	1	
Persian	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stud-bred	-	1	4	5	-	-	-	-	-	6	3	-	2	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Turkoman	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arab	1	10	12	23	-	-	-	-	3	37	8	1	4	53	12	17	7	36	6	6	2	14	5	4	2	11	-	1	-	2	3
TOTAL	85	64	34	133	1	-	-	1	38	115	16	1	6	176	21	17	7	45	10	7	2	19	11	4	2	17	3	1	-	4	8
TOTAL in each Presidency	310														89																

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APPENDIX VII.

HORSE-BREEDING OPERATIONS.

STATEMENT showing Cost of FEED, KEEP, ATTENDANTS, &c., of HORSE STALLIONS in the BENGAL and BOMBAY PRESIDENCIES during the Official Year 1885-86.

PRESIDENCY, PROVINCE, AND DISTRICT.	Number of Stallions or Days.	Total Annual Cost.	Average per Horse Stallion per Annum.	General Average in each Province.	REMARKS.
BENGAL PRESIDENCY.					
NORTH-WESTERN PROVINCE.					
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	
Babugarh Depôt - - - -	12,648	6,524 15 6	188 4 9		
Meerut District - - - -	3,698	2,483 3 6	232 8 4		
Bulandshar - - - -	2,880	1,792 13 2	217 3 5		
Saharunpur - - - -	4,483	2,580 10 5	210 1 9		
Muzaffarnagar - - - -	3,984	2,433 4 6	232 14 10		
Aligarh - - - -	2,991	2,091 7 9	244 3 11		
Muttra - - - -	620	625 - 11	233 11 5		
Agra - - - -	601	348 9 4	211 11 2		
Etah - - - -	708	450 6 3	232 3 1		
Shahjhanpur - - - -	1,041	627 1 8	219 14 -		
Budaun - - - -	1,109	690 13 1	227 5 10		
Bareilly - - - -	596	367 6 8	225 - 2		
Moradabad - - - -	1,449	903 1 -	227 7 8		
Bijnor - - - -	336	205 13 5	223 9 8		
Gurgaon - - - -	896	507 9 3	206 9 10		
Delhi - - - -	942	668 3 7	220 2 8		
Kurnal - - - -	2,322	1,394 2 10	205 - 1		
Rohtak - - - -	1,403	977 15 6	243 15 9		
Hissar - - - -	1,604	1,162 8 6	264 8 7		
Umballa - - - -	1,060	683 10 9	235 6 7		
Add charges for gear purchased - -	-	1,017 2 3	-		
TOTAL - - -	45,831	28,155 9 10	-	224 3 8	
RAJPUTANA.					
Jhalrapatan - - - -	292	146 11 8	183 6 7	183 6 7	
PANJAB.					
Hazara - - - -	2,453	1,587 1 3	226 2 6		
Peshawar - - - -	1,086	644 14 7	216 12 -		
Murdan - - - -	369	257 1 10	254 5 3		
Rawalpindi - - - -	10,461	6,288 7 9	219 6 8		
Jhelum - - - -	2,674	1,533 12 3	212 1 7		
Gujrat - - - -	2,746	1,716 1 6	228 1 8		
Gujranwala - - - -	1,691	1,080 13 10	209 11 10		
Sialkot - - - -	1,576	902 11 3	230 - 11		
Lahore - - - -	2,737	1,763 15 2	249 3 10		
Amritsar - - - -	2,402	1,464 12 -	222 9 3		
Gurdaspur - - - -	1,380	737 11 -	195 1 9		
Hoosierpur - - - -	1,140	625 3 -	200 2 9		
Jullundar - - - -	1,095	624 6 3	208 2 1		
Ludhiana - - - -	1,080	613 9 5	207 5 11		
Ferozepur - - - -	2,183	1,268 2 2	212 - 6		
Shahpur - - - -	3,203	1,834 1 -	211 4 6		
Jhang - - - -	1,830	1,179 9 11	235 4 6		
Dehra Ismail Khan - - - -	1,647	975 4 9	216 2 3		
Bannu - - - -	730	360 - 8	190 - 4		
Dehra Ghani Khan - - - -	8,225	6,805 8 9	293 2 1		
Muzaffargarh - - - -	2,939	1,057 6 4	242 10 11		
Multan - - - -	5,520	3,514 14 10	232 6 8		
Montgomery - - - -	1,471	875 3 7	217 2 9		
Probynsabad - - - -	531	265 7 6	189 7 8		
Veterinary School, Lahore - - - -	1,366	939 2 8	250 15 2		
Babugarh Depôt - - - -	4,514	2,442 1 8	197 7 6		
Add charges for gear purchased - -	-	1,073 5 11	-		
TOTAL - - -	67,258	43,306 - 8	-	235 8 -	

APPENDIX VII.—HORSE-BREEDING OPERATIONS—continued.

STATEMENT showing Cost of Feed, Keep, Attendants, &c.—continued.

PRESIDENCY, PROVINCE, AND DISTRICT.	Number of Stallions or Days.	Total Annual Cost.	Average per Horse Stallion per Annum.	General Average in each Province.	REMARKS.
BOMBAY PRESIDENCY.					
DECCAN.					
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	
Sirur - - - - -	1,751	1,327 12 10	276 12 6		
Supa - - - - -	1,095	927 5 2	309 1 8		
Baramati - - - - -	1,085	1,100 11 -	366 14 4		
Indapur - - - - -	770	597 - 10	288 - 3		
Ahmednagar - - - - -	3,867	3,655 1 10	343 3 7		
Sholapur - - - - -	769	784 14 9	348 13 2		
Bijapur - - - - -	365	291 2 1	291 2 1		
Belgaum - - - - -	399	570 8 8	531 3 10		
Dhawalwar - - - - -	998	1,167 7 4	427 13 4		
Satara - - - - -	730	623 - 8	311 8 4		
Nasik - - - - -	730	614 10 -	257 5 -		
Khandesh - - - - -	2,602	2,169 1 8	303 6 11		
TOTAL - - - - -	15,182	13,672 12 10	-	328 11 5	
GUJRAT AND KATHIAWAR.					
Kaira - - - - -	599	560 9 -	341 9 3		
Ahmedabad - - - - -	3,253	1,859 1 2	208 9 6		
Deesa - - - - -	549	624 13 10	349 9 5		
Thurad - - - - -	170	181 9 10	282 9 4		
Kathiawar - - - - -	2,084	1,802 3 7	323 6 6		
TOTAL - - - - -	6,604	4,878 5 5	-	269 9 11	
SINDH AND CUTCH.					
Cutch - - - - -	1,687	1,430 9 9	309 8 5		
Karachi - - - - -	365	328 12 10	328 12 10		
Thar and Parker - - - - -	365	340 12 4	340 12 4		
Hyderabad - - - - -	730	666 4 11	393 2 5		
Shikarpur - - - - -	1,215	959 10 8	288 4 8		
Jacobabad - - - - -	1,785	1,875 4 6	383 7 4		
TOTAL - - - - -	6,417	5,601 7 -	-	332 9 8	
BILUCHISTAN.					
Biluchistan - - - - -	790	830 3 4	380 10 11	380 10 11	

A B S T R A C T.

PRESIDENCY.	PROVINCE.	Average in each Province.	Average in each Presidency.
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>
BENGAL	North-Western Provinces - - - - -	224 3 8	230 13 -
	Rajputana - - - - -	188 6 7	
	Punjab - - - - -	235 8 -	
BOMBAY	Deccan - - - - -	328 11 5	317 6 5
	Gujrat and Kathiawar - - - - -	269 9 11	
	Sind and Cutch - - - - -	332 9 8	
	Biluchistan - - - - -	380 10 11	

APPENDIX IX.

HORSE-BREEDING OPERATIONS.

GENERAL STATEMENT showing Results of the Year's Operations during the Official Year 1885-86.

PRESIDENCY.	PROVINCE	Number of Branded Mares the property of breeders, remaining on the Registers on 31st March 1887.		Number of Branded Mares the property of Government Horse Stations covered by Government Stallions.		Number of Government Horse Stations employed at Stud work.	Average Number of Branded Mares covered in 1885-86 per Station employed during the Year.	NUMBER OF STOCK THE PROPERTY OF BREEDERS, GOT BY GOVERNMENT STALLIONS, FOALLED DURING 1885-86, THE RESULTS OF COVERINGS OF 1884-85.														GRAND TOTAL	Number of Mares covered in 1884-85, the results of which are known.			
		During 1884-85.	During 1885-86.	During 1884-85.	During 1885-86.			Colts.							Fillies.								Number of Government Stallions employed in 1885-86, with regard to coverings, are known.	Percentage of Produce foaled during 1885-86 to Mares covered in 1884-85.	Average Number of Produce foaled during 1885-86, per Station employed at Stud work in 1884-85.	
								By thoroughbred English.							Thorough-bred English.											
								Half-bred English and Norfolk Trotters.	Australian.	Arab.	Stuched.	Persian.	TOTAL.	Half-bred English and Norfolk Trotters.	Australian.	Arab.	Stuched.	Persian.	TOTAL.							
Bengal	North-Western Provinces	5,098	4,349	4,359	102	100	41-01	118	405	-	81	83	-	637	180	272	-	63	60	-	635	1,278	4,218	102	49-90	12-47
	Rajputana	96	11	22	1	1	22	-	7	-	-	-	-	7	-	2	-	-	-	-	-	2	11	1	61-8	9
	Panjab	10,006	8,748	8,740	174	171	33-02	174	394	8	251	144	0	960	188	477	0	211	140	10	1,002	3,022	5,742	174	30-21	11-02
	TOTAL	16,720	9,006	10,240	277	281	36-79	298	806	8	312	177	0	1,004	336	751	0	304	190	10	1,690	8,03	9,005	277	33-04	11-92
Bombay	Deccan and Khandesh	1,120	909	1,334	35-00	35-50	32-62	8	25	-	131	-	-	164	6	10	-	146	-	-	107	221	830	30-69	30-87	10-62
	Gujrat and Kathiawar	1,002	971	308	11-36	10-00	39-87	10	2	-	20	-	-	22	13	2	-	23	-	-	28	70	221	8-05	30-30	8-59
	Sind and Cutch	1,330	806	671	12-78	15-86	42-30	-	7	2	30	-	-	39	-	5	3	18	-	-	28	67	213	7-54	21-40	8-58
	Baluchistan	120	115	34	3-00	2-18	15-50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	4,000	1,864	2,307	62-04	71-72	32-16	18	34	2	161	-	-	235	19	22	5	167	-	-	933	468	1,474	46-18	34-06	10-12	

APPENDIX X.

HORSE-BREEDING OPERATIONS.

STATEMENT showing the Number of CAST MARES received from CORPS and BATTERIES, and sold to *bonâ fide* BREEDERS for Breeding Purposes during 1885-86.

Number.	Brand Number.	Colour.	From whence Received.		Date of Receipt.	Date of Sale.	Sold for Horse or Mule Breeding.	Name of Purchaser.	Price.	Remarks.
			Corps and Batteries.	Station.						
BENGAL PRESIDENCY.										
N. W. Provinces.										
1	7 B near saddle	Chestnut	L-A.R.H.A.	Umballa	29 Nov. 1884	1 May 1885	Mule-breeding	Man Singh	95	
2	R No.—88	"	E-A.R.H.A.	Lucknow	25 Jan. 1885	1 " "	"	Hamir	15	
3	R No.—129	"	"	"	"	1 " "	"	Raflooddin	30	
4	R No.—158	"	"	"	25 Mar. "	1 " "	"	Mausingh	30	
5	R No.—20	"	"	"	"	1 " "	"	Bakhtawar	25	
BOMBAY PRESIDENCY.										
6	6	D. Bay	D—2 R.A.	Ahmedabad	"	5 March 1886	Horse-breeding	Rev. G. Gillispie	40	
7	55	Black	"	"	"	8 " "	"	Mr. Oopkar Agoobhai	25	
8	2	"	C—2 R.A.	Hyderabad	"	24 Oct. 1886	"	Mr. Khair Mohamed	12	
9	7	"	"	"	"	24 " "	"	Dowlat Singh	43	
10	73	Brown	"	"	"	24 " "	"	Mahomed Ali	8 8	
11	98	Bay	"	"	"	24 " "	"	Oosman	70	
TOTAL - Rs.									393 8 -	
			Presidency.	Province.	Number of Mares.	Amount.	Average of each Province.	Average of each Presidency.		
			Bengal	North-Western Provinces	5	Rs. a. p. 195 - -	Rs. a. p. 39 - -	Rs. a. p. 39 - -		
			Bombay	Gajrat	2	65 - -	32 8 -	33 1 4		
				Sind	4	133 8 -	33 6 -			
			TOTAL		11	393 8 -				

APPENDIX XI.

HORSE-BREEDING OPERATIONS.

STATEMENT of REMOUNTS Purchased during the Official Year 1885-86.

PRESIDENCY.	REMOUNTS PURCHASED BY	NUMBER OF REMOUNTS PURCHASED.				DETAIL.									
		Horses.	Mares.	Geldings.	TOTAL.	Produce of Government Stallions.	Class of Sires not known.	Country-bred.	Cabuli.	Waler.	Arab.	Waziri.	Biluchi.	Hirati.	
Bengal	Army Remount Department { From 4 to 8 years of age	-	2	1	3	-	3	-	-	-	-	-	-	-	
	Army Remount Department { From 1 to 4 years of age	29	35	50	114	89	24	1	-	-	-	-	-	-	
	Bengal Native Cavalry	944	1,270	522	2,736	12	1,913	728	58	12	3	2	7	1	
	Panjab " "	76	275	152	503	2	496	-	5	-	-	-	-	-	
	North-Western Provinces Police	11	18	5	34	8	16	9	1	-	-	-	-	-	
	Panjab Police	6	13	1	20	2	2	13	-	-	-	-	3	-	
	TOTAL	1,060	1,618	781	3,410	113	2,454	751	64	12	3	2	10	1	
Bombay	Army Remount Department { From 4 to 8 years of age	11	-	-	11	-	11	-	-	-	-	-	-	-	
	Army Remount Department { From 1 to 4 years of age	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Bombay Native Cavalry	698	859	23	1,080	101	409	570	-	-	-	-	-	-	
	Police Northern Division	54	4	-	58	8	16	34	-	-	-	-	-	-	
	" Central "	11	3	-	14	1	18	-	-	-	-	-	-	-	
	" Southern "	5	1	-	6	-	2	4	-	-	-	-	-	-	
	" in Sindh "	85	4	8	97	2	1	94	-	-	-	-	-	-	
	TOTAL	864	371	31	1,266	112	452	702	-	-	-	-	-	-	

APPENDIX A.

STATEMENT showing the Number of COUNTRY-BRED REMOUNTS purchased by the BENGAL and PANJAB NATIVE CAVALRY since 1876-77.

YEARS.	Purchased by Bengal Native Cavalry.	Purchased by Panjab Native Cavalry.	TOTAL	REMARKS.
In 1876-77	887	237	1,124	
" 1877-78	704	208	907	
" 1878-79	1,751	556	2,307	
" 1879-80	859	248	1,107	
" 1880-81	1,182	522	1,704	
" 1881-82	452	303	755	
" 1882-83	1,301	268	1,569	
" 1883-84	889	307	1,196	
" 1884-85	926	250	1,176	
" 1885-86	2,736	503	3,239	
TOTAL	11,777	3,397	15,174	

APPENDIX B.

REMOUNTS purchased during 1885-86.

REGIMENTS, &c.	Yearlings.	Two Years.	Three years.	Four years.	Five years.	Six and over.	TOTAL.
BENGAL CAVALRY.							
1st Bengal Cavalry	-	4	35	51	23	1	114
2nd "	-	9	45	10	12	1	77
3rd "	-	1	49	41	10	8	109
4th "	-	2	18	14	5	3	43
5th "	-	6	38	25	21	19	104
6th "	-	1	47	33	10	14	105
7th "	-	1	36	47	27	6	117
8th "	-	5	37	20	18	10	85
9th " Lancers	-	-	68	37	22	18	145
10th "	-	4	44	34	16	24	122
11th "	-	-	5	11	6	3	25
12th " Cavalry	1	8	41	21	28	13	112
13th " Lancers	-	5	33	25	20	10	93
14th "	-	6	60	31	18	37	195
15th " Cavalry	-	12	53	35	20	37	187
16th "	-	2	76	128	104	139	448
17th "	-	31	158	135	76	140	540
18th "	-	1	56	19	13	3	94
19th " Lancers	-	4	45	49	12	9	120
TOTAL	1	102	930	766	456	481	2,736
PANJAB CAVALRY.							
1st Panjab Cavalry	-	1	38	30	17	18	108
2nd "	-	13	32	38	12	10	105
3rd "	-	4	47	37	28	2	118
5th "	-	10	25	58	36	16	145
Queen's Own Corps of Guides	-	3	15	2	4	5	29
TOTAL	-	31	155	169	97	61	603
REMOUNT DEPARTMENT.							
British Artillery and Cavalry	43	48	21	3	-	2	117
POLICE.							
North-Western Provinces	-	1	18	9	6	5	34
Panjab	-	1	5	7	3	4	20
TOTAL	-	2	18	16	9	9	54
ABSTRACT.							
Bengal Cavalry	1	102	930	766	456	481	2,736
Panjab Cavalry	-	31	155	169	97	61	603
Remount Department	43	48	21	3	-	2	117
Police, North Western Provinces and Panjab	-	2	18	16	9	9	54
TOTAL	44	183	1,124	954	562	543	3,410

APPENDIX E.

STATEMENT showing the Number of HORSE STOCK (not including BRANDED MARES) present and the Number sold at HORSE FAIRS and SHOWS in the NORTH-WESTERN PROVINCES and PUNJAB during 1985-86.

A G E S.	Total Number of Horse Stock (not including Branded Mares) present at the Fairs and Shows.			Total Number of Horse Stock (not including Branded Mares) sold at the Fairs and Shows.			Detail of Sales.					Number for Sale or Sold considered fit for		
	Belonging to Breeders and Zemindars.	Belonging to Dealers.	TOTAL.	By Breeders.	By Dealers.	TOTAL.	Number sold to Government for Remount Purposes.	Number sold to Agents for Native States.	Number sold to Other Private Purchasers.	Number sold to Horse Dealers.	TOTAL.	Artillery.	Medium Cavalry.	Hussars.
NORTH-WESTERN PROVINCES.														
Yearlings	389	224	613	45	20	65	31	3	2	29	65	10	3	45
Two to three years of age	671	691	1,362	83	106	189	79	38	2	70	189	9	13	56
Over three to four years of age	312	348	660	87	134	221	143	18	3	57	221	3	10	24
Over four to five years of age	160	201	421	41	87	128	88	7	2	31	128	1	2	9
Over five years of age	257	313	570	28	61	79	45	4	-	50	79	-	-	1
TOTAL	1,789	1,837	3,626	284	398	682	386	70	0	217	689	23	28	135
PUNJAB.														
Yearlings	871	62	933	216	28	244	1	-	185	55	241	1	1	2
Two to three years of age	1,175	144	1,319	238	51	289	41	10	58	178	287	1	28	2
Over three to four years of age	584	282	810	235	29	264	34	12	127	64	237	-	86	-
Over four to five years of age	676	269	945	148	21	169	10	11	71	54	146	7	63	5
Over five years of age	820	228	1,048	213	6	219	4	-	172	23	199	10	34	10
TOTAL	4,126	935	5,061	1,050	135	1,185	90	33	613	374	1,110	19	182	19
GRAND TOTAL	5,915	2,772	8,687	1,334	533	1,867	476	103	622	591	1,792	42	210	154

APPENDIX XII.

HORSE-BREEDING OPERATIONS.

STATEMENT showing the Number of COLTS, the property of Zamindars, Castrated by District Salutris and Castrators in the Horse-breeding Districts of the BENGAL and BOMBAY PRESIDENCIES, during the Official Year 1885-86.

Presidency.	Province.	District.	Number of Colts Castrated.	Number of Deaths resulting from effects of Operation.	Number of Mule Colts Castrated.		
Bengal	N.-W. Provinces	Saharanpur	128	-	3		
		Muzaffarnagar	61	-	0		
		Meerut	135	-	4		
		Bulandshahr	97	-	5		
		Aligarh	34	-	1		
		Agra	2	-	-		
		Etah	5	-	-		
		Shahjahanpur	11	-	2		
		Bareilly	13	-	2		
		Moradabad	5	-	-		
		Badaun	6	-	1		
		Mainpuri	3	-	-		
		Kurnal	13	-	1		
		Delhi	18	-	-		
		Gurgaon	3	-	-		
		Hissar	10	-	-		
		Umballa	33	-	-		
Ditto	Punjab	Rohtak	1	-	-		
		Rawalpindi	38	-	1		
		Jhelum	19	-	8		
		Gujrat and Gujranwala	20	-	-		
		Lahore	30	-	-		
		Amritsar	15	1	1		
		Ludhiana	12	-	11		
		Shahpur	62	-	2		
		Multan	53	-	6		
		Muzaffargarh	57	-	3		
		Dehra Ghazi Khan	191	-	3		
		TOTAL in Bengal Presidency			1,075	1	63
		Bombay	Deccan	Poona	19	-	-
			ditto	Ahmednagar	6	-	-
			ditto	Khandesh	27	-	-
			Gujrat	Ahmedabad	68	-	-
			Sind	Shikarpur	7	-	-
TOTAL in Bombay Presidency			122	-	-		

APPENDIX XIII.

MULE-BREEDING OPERATIONS.

CASUALTY ROLL of Donkey Stallions during the Official Year 1885-86.

Number.	Name.	Breed.	Description of Casualty.	Date of Casualty.	Nature of Casualty.
BENGAL PRESIDENCY.					
NORTH-WESTERN PROVINCES:					
1	Nasaldar	Arab	Died	Unknown	*Old age stated, but precise nature of illness not reported.
2	Dindyal	Arab	Destroyed	25 May 1885	Hip disease and indifferent coverer.
3	Satus	Italian	Died	18 August "	Anthrax.
4	Ghazalpur	Arab	ditto	Unknown "	*Nature of disease not stated.
5	Mintur	Arab	ditto	9 November "	Inflammation of bowels supervening an attack of colic.
PUNJAB:					
6	Morcha	Arab	ditto	1 April 1885	Fracture.
7	Nadat	Punjabi	ditto	17 "	Anthrax.
8	Preuji	Arab	ditto	4 July "	Fever.
9	Malsirkutta	Italian	ditto	ditto	Hydrophobis.
10	Chakarbutty	Arab	ditto	29 October 1885	Anthrax.
11	Durdam	Bokhara	ditto	26 January 1886	Plenritis.
12	Belaghat	Italian	ditto	17 March "	Fever.
13	Rustam	Arab	Destroyed	21 April 1885	Old and worn-out.
14	Bagdadi	Arab	ditto	23 December "	Incurable paralysis.
15	Bhadar	Bokhara	ditto	5 January 1886	Old and worn-out.
16	Arabjangi	Arab	ditto	ditto	ditto.

* Nature of disease not stated. These animals died away from veterinary care and attendance.

APPENDIX XIV.

MULE-BREEDING OPERATIONS.

STATEMENT of DONKEY STALLIONS sold during the Official Year 1885-86.

Number.	Name.	Class.	Date of Sale.	Name of Purchaser.	Amount sold for.	Remarks as to Cause why considered unfit for Government Stud Work.
BENGAL PRESIDENCY:						
1	Jandar - - -	Arab - - -	Dec. 1884 -	Not known - - -	Rs.	} Sold at Cuch Behar.
2	Pokhur - - -	Arab - - -	Dec. 1884 -	Not known - - -	-	
3	Nehalgarh - - -	Home bred - - -	18 July 1885	Poosa Chamar - - -	35	} Too small, and unsuited for stud purposes.
4	Hoogly - - -	Home bred - - -	27 July 1885	Kahna - - -	38	
5	Piwat - - -	Punjabi - - -	10 Mar. 1886	Sohanra - - -	54	} Impotent.

APPENDIX XV.

MULE-BREEDING OPERATIONS.

STATEMENT showing Classification and Distribution of DONKEY STALLIONS attached to the Department of Horse-breeding Operations in the BENGAL and BOMBAY PRESIDENCIES, during the Official Year 1885-86.

CLASSES.	BENGAL PRESIDENCY.												BOMBAY PRESIDENCY.											
	North-Western Provinces.					Rajputana.			Punjab.				Deccan.			Sind and Cutch.								
	Very good.	Good.	Fair.	Indifferent.	Bad.	Total.	Very good.	Good.	Fair.	Total.	Very good.	Good.	Fair.	Indifferent.	Bad.	Total.	Very good.	Good.	Fair.	Not seen.	Total.			
Spanish (Catalan) -	1	4	-	-	-	5	-	-	-	-	3	1	-	-	-	4	-	-	-	1	-	-	1	
Arab - - -	-	7	21	-	-	28	-	-	-	9	37	20	-	-	-	66	-	1	1	-	1	1	2	
Italian - - -	2	22	15	1	-	40	-	1	1	11	32	13	1	3	-	60	1	-	2	3	-	-	3	
French - - -	-	3	1	1	-	5	-	-	-	-	6	3	-	-	-	9	-	-	-	-	-	-	-	
Persian - - -	1	8	3	-	-	12	-	-	-	1	13	5	-	-	-	19	-	-	-	1	2	-	6	
Home bred - - -	1	5	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bokhara - - -	-	-	-	-	-	-	-	-	-	-	9	1	-	-	-	10	-	-	-	1	-	-	1	
Punjabi - - -	-	1	-	-	-	1	-	-	-	5	12	5	-	-	-	22	-	-	-	-	-	-	-	
Hirati - - -	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	
Cyprus - - -	-	7	3	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Catalonian - - -	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	6	-	-	-	-	-	-	-	
Khorasani - - -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	
TOTAL - - -	5	57	43	2	-	107	-	1	1	26	120	43	1	3	198	1	-	2	3	5	5	1	9	20
GRAND TOTAL - - -	310												23											

APPENDIX XVI.

MULE-BREEDING OPERATIONS.

MEMORANDUM by C. L. Sutherland, Esq., on Mule-breeding in India.

(Note.—Stallion donkeys are referred to as “jacks,” mare donkeys as “jennies,” and the two together as “jack stock.”)

IN mule-breeding operations it is desirable that, as a rule, the jacks be retained at the General treatment of jacks. haras and not sent round the country (although the latter system is undoubtedly more conducive to their health and well-being) for the following reasons:—

- (1.) Jacks will often refuse a mare until they have been prepared by the presence of the jenny. Another jack, or even a mule, will often produce the same effect.
- (2.) Mares will often refuse the jack owing to fear, and require to be teased by a horse and blindfolded.

Some jacks will cover a mare as readily as they will a jenny, and such jacks can be allowed to “travel” as in England; but it will be found that they are the exception.

In Poitou, the great mule-breeding district of France, a haras is composed of from four to 10 jacks, a stallion horse which covers mares in cases in which it is considered desirable to breed horses and not mules, one or two jennies to excite the unwilling jacks, and one or two horse teasers. One of the latter is ridden daily in the season all round the neighbourhood of the haras to try the mares. Those that are found to be in season are, as soon as possible, brought to the haras, where the other teaser is retained for the purpose of further teasing the mares on arrival. A haras with, say, eight jacks will often have a *clientèle* of 600 mares.

It is thought that the above reasons are sufficient to warrant the recommendation that the jacks be retained at the haras, and only in special cases allowed to travel round the country.

Each jack should have a separate box, and should have daily exercise, either led or loose, in a well secured paddock. They can be more readily broken to harness and worked in carts than is generally supposed.

The feeding of all breeding animals requires special attention. All grain which is inordinately rich in fat-forming constituents, as, for instance, Indian-corn, should be given sparingly. Taken together, perhaps oats are the best staple food, to which a moderate amount of the leguminous seeds, peas, beans and vetches, all containing phosphorus, and as such highly conducive to the formation of good healthy male semen, may be added.

A lump of rock salt, to keep the albumen of the blood in solution, should be placed in each jack's manger, and adds enormously to the general well-being of the animal, and is further thought by many to increase his procreative powers.

There is no jack that is so vicious that he cannot be managed by an expert. Instead of vicious it is better to use the term lively. Some are very lively and frighten people not used to these animals. They will attack and savage a stranger, and take any amount of punishment on the head or body. The Americans have a saying that the “mule is very private and particular about his ears.” The same applies to the jack. A small twig applied to a jack's ears smartly will keep him off a man better than a thick stick applied to his head or body. No jack will face a birch broom. At the sight of it he will retire to the further corner of his box. To lead a lively jack, get a twitch with a good thick piece of rope attached to it. Place the rope in his mouth, i.e., on his lower jaw, and twist it till it is moderately tight. Keep as near the point of the shoulder as possible. If he is extra lively, put on two of these twitches, with a man to each twitch, one at each side of the animal. The length of the stick should be from three to four feet. This twitch is the severest way of treating a jack, and should be seldom required. A common iron or galvanised iron bit, with cheek-pieces from nine to 12 inches long, will generally suffice to lead and control a lively jack.

Two leaps per diem from each jack, one in the morning and one in the evening, are all Use and abuse of sexual that should be expected, except in very special cases. In Poitou power. six or seven leaps, up to even 12, are daily exacted from each animal. The average mule-breeder of France is totally ignorant of the law of the physiology, and has only the love of immediate gain before his eyes. Although this abuse of sexual power does not seem actually to shorten the days of the jack, it materially affects his powers of fecundating his mares. I have known, however, of jacks of 25 years of age retaining their fecundating powers in spite of having been grossly abused.

Looking at the well-ascertained fact that the mare holds less readily to the jack than Number of mares to each jack. of cases a greater number of times by the former in order to prove in foal, it is fair to put the number of mares for each jack at from 50 to 70. In cases in

which jacks are intelligently managed and fed, this number may be increased to 100 mares.

Some jacks will never cover a mare after they have once covered a jenny. The first Jacks serving donkey service should be on a mare if possible, and he should not be allowed to serve a jenny until the end of the season, after having served all the mares required. By the beginning of the following season he will have forgotten to a great extent the jennies, and will begin with the mares again. It is only natural that he should prefer his own species. There is a very marked difference in his behaviour and general demeanour when covering mares or jennies. In certain cases it may be desirable to reserve a certain proportion of the jacks for breeding what is called in the United States jack stocks, as it is quite possible to spoil a good mare-server by allowing him to have connexion with his own species. These reserved jacks are called jennet jacks in the United States.

The presence of a jenny is the best and simplest, but failing that, the presence of anything with which the animal has been brought up when young. Mode of exciting the jack. The means vary with each animal, and it is often a tedious and slow process. Thus, a jack brought up with cows, as sometimes happens, will sometimes require a horned beast to be present as a *dernier ressort*. A jack I knew in Poitou had been hand-reared by a little girl, owing to his dam having been burnt to death the night he was born. This jack always required a *maquignon* or groom to clothe himself with a horse-rug round his legs before he would prepare himself. He was a most excellent mule-getter, but under ordinary circumstances, if transported far away, would have been at once condemned as useless in the absence of the above information. This subject will be more fully referred to under the heading of "the rearing of young jacks for mule-breeding purposes."

Some jacks are very lethargic, but this failing may generally be got over by allowing them to see another jack perform, when their feeling of jealousy will be aroused, and they will prepare themselves. A jack having been prepared, will sometimes require to be lifted on to the mare by two men, each man seizing a fore-leg, and care being taken that he cannot savage the men. He should not be muzzled as a rule. In cases in which the mare is much higher than the jack, the former should be placed in a hole with her head fastened to a strong ring in a ball in front, and a quantity of stable dung placed behind and firmly trodden down to the required height, which may in some cases be up to the hocks. This is the usual custom in France, Spain, and Italy. In the United States the jack is raised on a kind of platform, but having tried both plans, I incline to the former as the better and less dangerous method. It is imperatively necessary that the mare be hobbled. The neglect of this precaution results in broken legs and other injuries.

The rearing of young Jacks for Mule-breeding Purposes.

Looking at the fact that certain Punjabi, Bokhara, Persian, and, in the first instance, Arab donkeys have been considered good enough to use as jacks, it is fair to presume that among these breeds some jennies can be found good enough to continue the race of mule-getters when crossed once or twice with the imported European jacks. This is, however, a very important point, upon which I am unable to offer an opinion, as I have not seen the Indian jenny material upon which it is proposed to work.

In Mexico, and I am informed in Persia, immediately a jack is born he is taken from the jenny and handed over to a mare to suckle and bring up. This plan requires very considerable care to get the mare to take to the jack foal, but it is quite the best. If this arrangement cannot be carried out, the young jack may be reared by his own dam, weaned at six months, and then brought up, till he is two or three years old, in the constant company of a filly of his own age. The chief thing to bear in mind is that jacks, and in fact all animals, take to whatever they have been brought up with when young.

Reverting to the subject of the proposed crossing of the native jennies with the imported European jacks, I may state generally that I can bring very conclusive evidence pointing to the fact that this system has not succeeded in the United States, where mule-breeding was started under conditions precisely identical with those now prevailing in India, and where recourse is constantly being had to imported pure-blooded jacks.

In this memorandum I have endeavoured to point out the practices followed in countries with which I am practically acquainted, and in which the breeding of mules is an all-important rural industry. There may be, and doubtless are, difficulties attending the carrying out of these practices in India, and I must leave the consideration of them to the authorities on the spot, as I am unfortunately quite unacquainted with India and its requirements and capabilities.

I only venture to suggest that the time would seem to have arrived when the whole question of the future supply of mule-getting jacks requires the serious attention and consideration of the Indian Government.

APPENDIX XVII.

MULE-BREEDING OPERATIONS.

STATEMENT showing Cost of FEED, KEEP, ATTENDANTS, &c., &c., of DONKEY STALLIONS in the BENGAL and BOMBAY PRESIDENCIES during the Official Year 1885-86.

PRESIDENCY, PROVINCE, AND DISTRICT.	Number of Donkey Stallions or Days.	Total Annual Cost.	Average per Donkey Stallion per Annam.	General Average in each Province.	REMARKS.
BENGAL PRESIDENCY.					
NORTH-WESTERN PROVINCES.					
		<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	<i>Rs. a. p.</i>	
ibugarh Depôt - - - - -	11,542	2,661 9 1	84 2 10	—	
eerut District - - - - -	3,800	1,174 11 6	129 14 10	—	
ilandsabhr - - - - -	2,238	761 1 3	119 10 5	—	
baranpur - - - - -	4,022	1,259 - 5	114 4 1	—	
uzaffarnagar - - - - -	3,069	1,009 3 9	120 - 5	—	
lgarh - - - - -	1,348	491 6 8	133 - 11	—	
atira - - - - -	567	182 8 4	117 7 11	—	
ra - - - - -	334	99 12 3	109 - 5	—	
ah - - - - -	818	246 15 10	120 3 4	—	
âbâjâhnâpur - - - - -	418	140 - 2	122 4 1	—	
adaun - - - - -	1,374	463 9 8	122 12 7	—	
reilly - - - - -	857	109 12 5	112 3 4	—	
oradabad - - - - -	1,798	663 7 4	134 13 4	—	
inor - - - - -	1,110	366 7 11	120 8 2	—	
shabad - - - - -	365	112 1 6	112 1 6	—	
ainpuri - - - - -	393	114 9 4	134 4 6	—	
awah - - - - -	59	22 7 9	139 1 8	—	
shra Dun - - - - -	305	103 12 9	124 3 5	—	
umson - - - - -	393	134 12 -	125 2 4	—	
urgaon - - - - -	372	136 8 -	101 4 9	—	
elhi - - - - -	981	323 14 6	120 2 3	—	
urnal - - - - -	783	222 4 5	106 5 3	—	
ohak - - - - -	1,058	303 10 4	104 12 -	—	
mballa - - - - -	112	36 - -	117 5 1	—	
issar - - - - -	429	124 12 7	108 2 8	—	
add charges for gear purchased - - - - -	-	528 10 5	-	—	
TOTAL - - - - -	37,823	11,870 12 2	- - -	114 8 10	
RAJPUTANA.					
jmere - - - - -	365	114 5 -	114 5 -	114 5 -	
PUNJAB.					
azara - - - - -	3,989	1,326 11 2	121 6 4	—	
eshawar - - - - -	1,827	629 2 2	126 11 -	—	
ardau - - - - -	816	297 6 9	137 - 7	—	
ohat - - - - -	365	129 2 7	129 2 7	—	
helum - - - - -	2,545	879 5 6	126 1 10	—	
awalpindi - - - - -	19,803	6,951 7 2	128 4 -	—	
ujrat - - - - -	2,417	826 7 8	124 12 11	—	
ujjenwala - - - - -	1,157	400 1 3	126 3 5	—	
ahore - - - - -	2,411	878 12 11	122 11 10	—	
urtespur - - - - -	2,010	633 5 3	115 - 1	—	
oshierpur - - - - -	1,655	634 3 3	115 9 9	—	
amritsar - - - - -	1,370	412 3 1	109 2 7	—	
2,702	888 4 1	119 15 10	—		
allandar - - - - -	1,248	417 - 4	122 2 7	—	
udbiana - - - - -	1,035	364 15 7	121 10 6	—	
rozpur - - - - -	2,489	783 8 5	114 14 5	—	
ontgomery - - - - -	2,072	686 4 1	120 14 3	—	
hatpur - - - - -	2,841	944 8 3	121 5 7	—	
hang - - - - -	1,537	557 6 3	132 5 10	—	
era Ismail Khan - - - - -	980	307 13 3	114 10 5	—	
lanou - - - - -	1,185	403 - 11	143 8 10	—	
era Ghaal Khan - - - - -	3,375	1,233 13 2	139 14 10	—	
uzaffargarh - - - - -	4,087	1,308 13 8	113 5 1	—	
sultan - - - - -	2,804	988 - 2	128 9 9	—	
eterinary School, Lahore - - - - -	516	452 7 -	320 - 7	—	
angra - - - - -	1,061	316 13 3	108 15 10	—	
depôt - - - - -	2,668	618 6 -	84 10 6	—	
add charges for gear purchased - - - - -	-	518 13 2	-	—	
TOTAL - - - - -	71,021	24,759 4 4	- - -	127 3 11	

APPENDIX XVII.

MULE-BREEDING OPERATIONS.

STATEMENT showing Cost of Feed, Keep, Attendants, &c.—*continued.*

PRESIDENCY, PROVINCE, AND DISTRICT.	Number of Donkey Stallions or Days.	Total Annual Cost.	Average per Donkey Stallion per Annum.	General Average in each Province.	REMARKS.
BOMBAY PRESIDENCY.					
DECCAN.					
Sirur - - - - -	365	211 13 9	211 13 9	255 1 9	
Ahmednagar - - - - -	365*	267 13 7	267 13 7		
Khandesh - - - - -	630	470 13 5	272 12 7		
TOTAL - - - - -	1,360	950 8 9	- - -		
SIND AND CATCH.					
Bhuj - - - - -	365	168 2 3	168 2 3	183 7 4	
Umarkot - - - - -	365	101 13 -	101 13 -		
Hyderabad - - - - -	730	465 3 7	227 9 9		
Shikarpur - - - - -	1,657	762 5 10	167 14 10		
Jacobabad - - - - -	517	389 - 5	239 5 7		
TOTAL - - - - -	3,634	1,828 9 1	- - -		

A B S T R A C T.

Presidency.	Province.	Average in each Province.	Average in each Presidency.
Bengal	North-Western Provinces - - - - -	<i>Rs. a. p.</i> 114 8 10	122 12 1
	Rajputana - - - - -	114 5 -	
	Punjab - - - - -	127 3 11	
Bombay	Deccan - - - - -	255 1 9	202 15 6
	Sind and Catch - - - - -	183 7 4	

APPENDIX XVIII.

MULE-BREEDING OPERATIONS.

GENERAL STATEMENT showing Results of the Year's Operations during the Official Year 1885-86.

PRESIDENCY.	PROVI NOB.	MARES COVERED.		Number of Government Donkey Stations employed at Stud Work.	MULES BY GOVERNMENT DONKEY STALLIONS FOALD DURING THE YEAR.																	Number of Mares Covered in 1884-85, the Amount of which are known.	Number of Government Donkey Stallions employed in 1884-85, the Amount of which are known.	Average Number of Mares Covered during 1884-85, per Stallion employed in that Year.	Average Number of Mares Covered during 1885-86, per Stallion employed in that Year.									
		For Mule-breeding.			Donkey Mares for Donkey-breeding.	Colt Mules.								Filly Mules.																				
		During 1884-85.	During 1885-86.			By Spanish.	By Arab.	By Bokhara.	By Italian.	By Punjabi.	By Persian.	By French.	By Hindi.	By Cambodian.	TOTAL.	By Spanish.	By Arab.	By Bokhara.	By Italian.	By Home-bred.	By Punjabi.					By Persian.	By French.	By Hindi.	By Cambodian.	TOTAL.	GRAND TOTAL.			
		During 1884-85.	During 1885-86.		During 1884-85.	During 1885-86.	During 1884-85.	During 1885-86.	During 1884-85.	During 1885-86.	During 1884-85.	During 1885-86.	During 1884-85.	During 1885-86.	During 1884-85.	During 1885-86.	During 1884-85.	During 1885-86.	During 1884-85.	During 1885-86.	During 1884-85.					During 1885-86.	During 1884-85.	During 1885-86.						
Bengal	North-Western Provinces	8,318	4,247	22	10	69	81	52-48	4	206	-	129	-	117	3	-	-	459	30	170	-	105	4	-	136	3	-	-	456	008	3,318	89	27-4	13-15
	Rajputana	80	2	-	-	1	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Punjab	9,208	11,842	671	742	170	187	63-32	19	542	76	271	155	91	33	5	10	1,202	27	514	85	292	-	152	101	87	5	13	1,226	2,428	9,208	170	26-35	14-28
	TOTAL	19,481	16,091	893	761	240	269	61-64	23	748	76	301	165	208	36	5	10	1,654	57	693	85	397	4	152	237	39	5	13	1,682	3,390	12,621	230	26-37	13-00
Bombay	Deccan and Khandesh	80	44	-	-	8-41	8-00	14-65	-	2	-	8	-	-	-	-	-	11	-	4	-	5	-	-	-	-	-	-	0	20	80	641	23-00	3-60
	Gujarat and Kathiawar	-	10	-	-	6-0	1-00	10-00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Sind and Cutch	214	278	-	29	4-16	8-88	94-97	-	1	1	-	-	3	-	-	-	5	-	-	1	-	-	-	4	-	-	-	5	16	88	2-08	11-76	4-80
	TOTAL	294	338	-	29	13-17	19-88	28-49	-	4	1	8	-	3	-	-	-	16	-	4	1	5	-	-	4	-	-	14	30	165	7-40	13-18	4-05	

BENGAL AND BOMBAY PRESIDENCIES, 1885-86.

EAST INDIA (HORSE-BREEDING).

COPY of the ANNUAL ADMINISTRATION REPORT on
HORSE-BREEDING OPERATIONS in the BENGAL and
BOMBAY PRESIDENCIES, for Official Years 1884-5,
and 1885-6, omitting the MAPS and APPENDICES
6 to 17, inclusive.

(*Mr. Burdett-Coutts.*)

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